# Maxim Semenov

## Bio

### Maxim Semenov

*He/Him*

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https://smnv.org

**Location:**

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**Summary:**
Senior Software Engineer with 20+ years architecting scalable web platforms and enterprise e-commerce solutions. Built systems processing $5M+ in annual transactions for enterprise healthcare, logistics, and media clients. Published 10+ open-source modules serving 1000+ installations globally. Achieved perfect 100 Google PageSpeed scores through advanced


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> performance engineering. Neurodivergent engineer (ADHD) leveraging hyper-focus, pattern recognition, and creative problem-solving as competitive advantages in complex system design. Seeking Staff/Principal Engineer or Solutions Architect roles at companies building products at scale.

## Work

### Senior Software Engineer / Solutions Architect (Consulting)

Independent Consultant (Laval LLC) (https://maksant.com)

**Period:** Jan 2004

**Location:** Philadelphia, PA, US

**Type:** Full-time

### UI/UX Designer

Altapost LTD (https://altapost.com)

**Period:** Jan 2018 - Dec 2024

**Location:** Philadelphia, PA, US

**Type:** Full-time

### Web Designer

National Sales LTD (https://imedsales.com)

**Period:** Jun 2016 - Jul 2019

**Location:** Bensalem, PA, US

**Type:** Full-time

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### Executive Partner & Technical Lead

Weddy

**Period:** Jan 2014 - Jun 2017

**Location:** Moscow, RU

**Type:** Full-time

### DevOps Engineer

Krugozor Spa-Hotel

**Period:** May 2011 - Jul 2013

**Location:** Kislovodsk, Stavropol region, RU

**Type:** Full-time

## Projects

**Type:** Web Application

### Project Overview

Enterprise-scale spirits reference platform serving enthusiasts, industry professionals, and collectors. Comprehensive database-driven catalog with advanced content management capabilities demonstrating expertise in scalable web architecture.

### Technical Architecture

- **10,000+ Product Database:** Complex relational database architecture managing spirits catalog with detailed specifications: ABV, age statements, regional classifications, distillery information, tasting notes, awards, and market pricing.
- **Advanced Search Engine:** Custom-built search system with multi-faceted filtering by category (whiskey, rum, vodka, gin, etc.), brand, region, price range, ABV percentage, and age. Real-time search with <100ms query response times.
- **Content Management System:** Full-featured CMS for articles, reviews, tasting notes, cocktail recipes, industry news, and educational content. Editorial workflow with draft/publish states

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and scheduled posting.

- **Events Calendar:** Interactive calendar system for industry tastings, product releases, distillery tours, and spirits-related happenings. Integration with Google Calendar API.
- **Company Directory:** Comprehensive database of distilleries, producers, distributors, and retailers with contact information, product portfolios, and company profiles.
- **Custom ProcessWire Modules:** Developed specialized modules for spirits data management including custom field types, URL shortener integration, and automated product imports.
- **Performance Optimization:** Achieved 95+ PageSpeed scores through lazy loading, WebP image conversion, intelligent caching strategies, and Cloudflare CDN integration.
- **SEO Architecture:** Comprehensive Schema.org markup for products, reviews, organizations, and events. Rich snippets implementation improving search visibility and click-through rates.
- **Responsive Design:** Mobile-first approach using Tailwind CSS. Optimized experiences across desktop, tablet, and mobile devices with touch-friendly interfaces.

## Key Features

- 10,000+ spirits products with detailed specifications and imagery
- Advanced filtering: category, brand, region, ABV, age, price
- User-generated reviews and ratings system
- Cocktail recipe database with ingredient matching
- Industry events calendar and news feed
- Company directory with 500+ distilleries and producers
- Custom URL shortener (LQRS.com/short-code) for easy sharing
- Email newsletter system with 1,000+ subscribers

## Technical Achievements

- Complex database schema with 15+ related tables
- Query optimization: <100ms response times on complex searches
- Automated product import system from multiple data sources
- Image processing pipeline: automatic resizing, WebP conversion, CDN upload
- Custom admin interface for content managers and editors
- API endpoints for mobile app integration (future roadmap)

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## Business Impact

- 10,000+ monthly unique visitors
- Average session duration: 5+ minutes
- 1,000+ email newsletter subscribers
- Featured in spirits industry publications
- Partnership inquiries from distilleries and distributors

**Link:** https://lqrs.com

**Type:** Open Source Software

## Open Source Contributions

Published 10+ ProcessWire modules serving 1000+ active installations globally. Demonstrated expertise in ProcessWire core architecture, PHP development best practices, and community collaboration. Active contributor to one of the most respected PHP CMS ecosystems.

## Published Modules

### 1. WireWall - Application-Level Firewall

- **Purpose:** Advanced traffic firewall with VPN/Proxy/Tor detection, rate limiting, and JS challenge system
- **Technical Features:** IP reputation checking, geo-blocking, user agent analysis, request pattern detection, automated blocking rules
- **Impact:** Protects websites from malicious traffic, reduces server load, prevents automated attacks
- **Tech Stack:** PHP, ProcessWire hooks, IP databases, JavaScript challenges
- **Published Article:** Dev.to technical write-up

### 2. WireNPS - Net Promoter Score System

- **Purpose:** Collect and analyze user feedback with clean popup interface and comprehensive analytics
- **Technical Features:** AJAX-powered surveys, score calculations, trend analysis, customizable triggers, export functionality
- **Impact:** Enables businesses to measure customer satisfaction and identify improvement areas

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- **Tech Stack:** PHP, JavaScript, Chart.js, MySQL

### 3. Square Images - Perfect Image Cropping

- **Purpose:** Create perfect square images from any source format with smart cropping
- **Technical Features:** Automated center-crop algorithm, aspect ratio detection, quality preservation, batch processing
- **Impact:** Solves common design problem for profile pictures, product thumbnails, social media assets
- **Tech Stack:** PHP GD library, image processing algorithms

### 4. FieldtypeFileB2 - Backblaze B2 Cloud Storage

- **Purpose:** Store ProcessWire files on Backblaze B2 Cloud Storage
- **Technical Features:** Automatic uploads, CDN integration, cost-effective cloud storage, seamless file management
- **Impact:** Reduces hosting costs, improves file delivery speed, enables scalable storage
- **Tech Stack:** PHP, Backblaze B2 API, Cloudflare CDN

### 5. Embedr - Dynamic Content Embeds

- **Purpose:** Manage dynamic content embeds with live preview functionality
- **Technical Features:** YouTube, Vimeo, Twitter, Instagram embeds, oEmbed support, responsive wrappers
- **Impact:** Simplifies rich media integration for content editors
- **Tech Stack:** PHP, JavaScript, oEmbed API

### 6. Timezone - Flexible Timezone Management

- **Purpose:** Flexible timezone values with dynamic UTC offsets
- **Technical Features:** Automatic DST handling, UTC conversion, user preference storage
- **Impact:** Essential for international applications and event management
- **Tech Stack:** PHP DateTimeZone, timezone databases

### 7. AgeWire - Age Verification Module

- **Purpose:** Age verification module with Tailwind CSS support
- **Technical Features:** Customizable age gates, session persistence, cookie management, design flexibility

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- **Impact:** Legal compliance for alcohol, tobacco, adult content sites
- **Tech Stack:** PHP, JavaScript, Tailwind CSS

### 8. LQRS URL Shortener Profile

- **Purpose:** Free, easy-to-use URL shortener that transforms long links into concise, shareable URLs
- **Technical Features:** Custom short codes, click tracking, QR code generation, API access
- **Impact:** Professional URL shortening solution for ProcessWire sites
- **Tech Stack:** PHP, ProcessWire, redirect handling

### 9. Media Platform Profile

- **Purpose:** Fully-featured media platform with Backblaze B2 and Cloudflare integration
- **Technical Features:** Video hosting, image galleries, cloud storage, CDN delivery
- **Impact:** Complete media management solution for ProcessWire
- **Tech Stack:** ProcessWire, Backblaze B2, Cloudflare, PHP

### 10. 2048 Game

- **Purpose:** Take a break with 2048 game in ProcessWire admin
- **Technical Features:** Full JavaScript implementation, touch support, score tracking
- **Impact:** Fun Easter egg for ProcessWire administrators
- **Tech Stack:** JavaScript, CSS animations

## Community Impact

- **1000+ Active Installations:** Modules deployed across global ProcessWire community
- **5-Star Ratings:** Consistently positive feedback from users
- **Active Support:** Regular updates, bug fixes, and feature enhancements
- **Documentation:** Comprehensive README files, usage examples, API documentation
- **Open Source:** All modules available on GitHub with permissive licensing

## Technical Excellence

- Follow ProcessWire coding standards and best practices
- Comprehensive error handling and logging
- Security-focused development (input validation, SQL injection prevention)

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- Performance optimized (efficient queries, caching strategies)
- Backward compatibility maintained across ProcessWire versions
- Modular architecture enabling easy customization

**Link:** https://processwire.com/modules/author/maxim-semenov/

**Type:** High-Performance Business Website

## Performance Engineering Excellence

Achieved perfect 100/100 Google PageSpeed score on production website, demonstrating world-class performance optimization expertise. Verified on both mobile and desktop across all Core Web Vitals metrics.

## Technical Implementation

- **Image Optimization Pipeline:**
  - Automatic WebP conversion with fallback support
  - Responsive images with srcset for optimal sizes
  - Lazy loading for below-the-fold images
  - Blur-up placeholder technique for perceived performance
  - Image CDN integration for global delivery
- **Critical Rendering Path Optimization:**
  - Critical CSS inlined in HTML head
  - Non-critical CSS loaded asynchronously
  - JavaScript deferred until DOM ready
  - Font loading optimization with preload hints
  - Resource hints (preconnect, prefetch) for third-party resources
- **Caching Strategy:**
  - Server-side HTML caching with smart invalidation
  - Browser caching with optimal cache headers
  - Cloudflare CDN with edge caching
  - Service worker for offline functionality
- **Code Optimization:**

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  - Minified HTML, CSS, and JavaScript
  - Gzip and Brotli compression enabled
  - Eliminated render-blocking resources
  - Optimized JavaScript execution with code splitting
  - Removed unused CSS and JavaScript
- **Core Web Vitals Excellence:**
  - **LCP (Largest Contentful Paint):** <1.2s (Good)
  - **FID (First Input Delay):** <50ms (Good)
  - **CLS (Cumulative Layout Shift):** <0.1 (Good)
  - **FCP (First Contentful Paint):** <1.0s
  - **TTI (Time to Interactive):** <2.0s

## Business Features

- Responsive portfolio gallery with smooth animations
- Interactive project showcase with filtering
- Contact form with spam protection and validation
- SEO optimized with Schema.org markup
- Accessibility compliant (WCAG 2.1 AA)

## Results & Impact

- **Perfect 100/100 PageSpeed Score:** Mobile and desktop
- **Sub-second Load Times:** Average <1s on 4G connections
- **Improved SEO Rankings:** First page results for target keywords
- **Enhanced User Experience:** 60% increase in session duration
- **Mobile Optimization:** 95% of users on mobile devices

## Verification

View Official PageSpeed Report →

**Link:** https://modenza.org

**Type:** Enterprise SaaS Platform

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## Enterprise Platform Overview

Comprehensive logistics management system for international mail forwarding business serving 50+ concurrent users. Full-featured platform handling package receiving, storage, repackaging, and international shipping operations.

## Key Features & Capabilities

- **Customer Portal:**
  - Package tracking with real-time status updates
  - Virtual mailbox management with photos
  - Shipping requests and consolidation options
  - Invoice management and payment processing
  - Address book with multiple shipping destinations
  - Notification system (email, SMS, in-app)
- **Warehouse Management:**
  - Package intake and scanning system
  - Inventory management with location tracking
  - Photo documentation for package contents
  - Consolidation and repackaging workflows
  - Weight and dimension recording
  - Shipping label generation and integration
- **Operations Dashboard:**
  - Real-time operations monitoring
  - Task assignment and queue management
  - Performance metrics and KPIs
  - Staff productivity tracking
  - Exception handling and escalation
- **Administrative Tools:**
  - User management with role-based access control
  - Pricing rules and shipping calculator
  - Integration with shipping carriers (USPS, FedEx, DHL)
  - Financial reporting and analytics
  - Customer support ticketing system

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## Technical Architecture

- **Backend:** PHP Yii Framework 2.0 with MVC architecture
- **Database:** MySQL with optimized schema for high-volume transactions
- **Caching:** Memcached for session management and query optimization
- **Frontend:** Bootstrap 4 → Tailwind CSS migration (led initiative)
- **Security:** Two-factor authentication, SSL certificates, role-based permissions
- **APIs:** RESTful APIs for mobile app integration (future roadmap)

## Design & UX Contributions

- Redesigned customer portal reducing task completion time by 35%
- Created design system with reusable components
- Conducted usability testing with warehouse staff and customers
- Implemented responsive design for tablet-based warehouse operations
- Developed landing pages for marketing campaigns
- Created internal documentation and training materials

## Business Impact

- 50+ concurrent users during peak operations
- 1,000+ packages processed monthly
- 40% improvement in customer satisfaction scores
- 35% reduction in average task completion time
- 99.5% system uptime during business hours

**Link:** http://altapost.de

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**Type:** Hospitality & Booking Platform

## Award-Winning Implementation

Developed cutting-edge hotel website recognized as one of the best in its category for innovative use of technology and superior user experience. Integrated advanced features setting new standards in hospitality web design.

## Key Features

- **Real-Time Booking System:**
  - Integration with hotel property management system
  - Real-time availability checking across multiple room types
  - Dynamic pricing based on season, occupancy, length of stay
  - Secure payment processing (credit cards, online banking)
  - Booking confirmation and modification workflows
  - Multi-language support (Russian, English, German)
- **Interactive 3D Floor Plans:**
  - Detailed 3D visualizations of hotel layout
  - Interactive room selection with virtual tours
  - Amenities visualization and facility locations
  - Mobile-optimized 3D rendering
- **Rich Media Integration:**
  - Live webcams showing mountain views and weather
  - HD video tours of rooms, spa facilities, restaurants
  - Professional photography gallery with lightbox
  - Virtual 360° tours of premium suites
- **Interactive Maps:**
  - Google Maps integration with hotel location
  - Nearby attractions and points of interest
  - Driving directions and public transportation
  - Distance calculator to major landmarks
- **Analytics & User Behavior:**
  - Smartlook session recording and heatmaps
  - Real-time visitor tracking and analytics
  - Conversion funnel analysis
  - A/B testing for booking flow optimization

## Technical Implementation

- **Hybrid Architecture:** WordPress for content management + custom PHP/Yii for booking

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engine

- **Performance Optimization:** Advanced caching system, CDN integration, lazy loading
- **Security:** SSL certificate, PCI DSS compliance for payments, regular security audits
- **Third-Party Integrations:** Booking.com, Expedia, TripAdvisor, Google Hotel Ads
- **Mobile-First Design:** Responsive Bootstrap framework optimized for mobile bookings

## Results & Recognition

- **Industry Recognition:** Featured as one of the best hotel websites in category
- **Booking Conversion:** 25% increase in direct bookings vs. OTA channels
- **User Engagement:** Average session duration 6+ minutes
- **Mobile Traffic:** 70% of visitors on mobile devices
- **Revenue Impact:** 30% increase in online revenue year-over-year

**Link:** https://kislovodsk.plaza.spa

**Type:** Design System

## Design System Overview

Comprehensive, proprietary component library and design system built on Tailwind CSS utility-first framework. Enables rapid prototyping and consistent design implementation across 20+ client projects.

## Component Library

- **Form Components:**
  - Text inputs with validation states
  - Textareas with character counters
  - Select dropdowns with search
  - Radio buttons and checkboxes
  - Toggle switches
  - File upload with drag-and-drop
  - Date and time pickers
  - Range sliders
- **Navigation:**

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  - Responsive navigation bars
  - Dropdown menus and mega menus
  - Breadcrumbs
  - Pagination
  - Tabs and accordions
  - Sidebar navigation
- **Feedback & Overlays:**
  - Modal dialogs
  - Alert messages (success, error, warning, info)
  - Toast notifications
  - Loading spinners
  - Progress bars
  - Tooltips and popovers
- **Content Display:**
  - Cards with various layouts
  - Tables with sorting and filtering
  - Lists and grids
  - Badges and labels
  - Avatars and profile components
  - Timeline components
- **Buttons & Actions:**
  - Primary, secondary, tertiary buttons
  - Icon buttons
  - Button groups
  - Floating action buttons
  - Split buttons

## Design Tokens & System

- **Color System:** Comprehensive palette with semantic naming (primary, secondary, success, error, warning, info)
- **Typography Scale:** Modular type scale with responsive sizing
- **Spacing System:** Consistent spacing scale (0.25rem increments)

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- **Breakpoints:** Mobile-first responsive breakpoints (sm, md, lg, xl, 2xl)
- **Elevation/Shadows:** Shadow scale for depth and hierarchy
- **Border Radius:** Consistent radius scale for rounded corners

## Interactive Components (Alpine.js)

- Dropdown menus with keyboard navigation
- Modal dialogs with focus trap
- Tabs with URL hash support
- Accordions with animation
- Form validation with error messages
- Image lightbox galleries

## Accessibility Features

- WCAG 2.1 AA compliant components
- Keyboard navigation support
- Screen reader friendly markup
- Focus management and indicators
- Color contrast ratios meeting standards
- ARIA labels and roles

## Documentation & Usage

- Comprehensive component documentation
- Live code examples and demos
- Copy-paste code snippets
- Design guidelines and best practices
- ProcessWire integration examples
- Customization instructions

## Impact & Usage

- **20+ Projects:** Used across diverse client projects
- **Development Speed:** 50% faster UI implementation
- **Consistency:** Unified design language across projects
- **Maintenance:** Single source of truth for updates

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- **Collaboration:** Shared vocabulary with designers and developers

**Link:** https://design.smnv.org/case/input-ui/

**Type:** E-commerce Platforms

## Portfolio Overview

Architected and developed multiple custom e-commerce platforms for enterprise clients across healthcare, logistics, and retail sectors. Platforms processing $5M+ in combined annual transactions with 99.9% uptime and industry-leading performance.

## Healthcare Supply E-commerce (Enterprise Client)

- **Scale:** $5M+ annual transactions, 10,000+ daily orders
- **Complexity:** 5,000+ SKUs with complex medical certifications
- **Features:**
  - B2B pricing with customer-specific contracts
  - Approval workflows for large purchases
  - HIPAA-compliant data handling
  - Multi-warehouse inventory management
  - ERP integration (automated order sync)
  - Specialized shipping (medical supplies, cold chain)
  - Regulatory compliance tracking
- **Technical Stack:** Custom PHP platform, MySQL, REST APIs, AWS infrastructure
- **Results:** 40% reduction in order processing time, 99.9% uptime

## Multi-Vendor Marketplace

- **Features:**
  - Vendor onboarding and product management
  - Commission-based revenue model
  - Split payments between vendors and platform
  - Vendor performance analytics
  - Review and rating system
  - Dispute resolution workflows

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- **Technical Implementation:** Custom PHP, Stripe Connect, automated payouts
- **Scale:** 50+ vendors, 2,000+ products, $1M+ GMV

### B2B E-commerce Portal

- **Features:**
  - Quote management and approval workflows
  - Bulk ordering with CSV import
  - Custom pricing by customer account
  - Credit terms and invoicing
  - Purchase order integration
  - Sales representative assignment
- **Integration:** ERP synchronization, inventory management, CRM

### Shopify Enterprise Customizations

- Custom Liquid theme development
- Shopify Plus features (wholesale channel, B2B)
- Third-party app integrations
- Custom checkout experiences
- Subscription and recurring billing
- Multi-currency and international shipping

### Payment Gateway Integrations

- Stripe (cards, ACH, wallets)
- PayPal (standard, Express Checkout)
- Authorize.net (legacy systems)
- Custom payment processors
- PCI DSS compliance implementation
- Fraud detection and prevention

### Inventory Management

- Real-time inventory tracking
- Multi-warehouse management

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- Low-stock alerts and auto-reordering
- SKU management and variants
- Barcode scanning integration
- Inventory forecasting

### Performance & Optimization

- **Load Times:** <1 second average page load
- **Uptime:** 99.9% across all platforms
- **Scalability:** Handling 10,000+ concurrent users
- **Mobile:** 70% of transactions on mobile devices
- **Conversion:** Average 3.5% conversion rate (industry: 2.5%)

### Security & Compliance

- PCI DSS Level 1 compliance for payment processing
- HIPAA compliance for healthcare platforms
- Regular security audits and penetration testing
- SSL/TLS encryption for all transactions
- Data backup and disaster recovery
- GDPR and privacy compliance

**Type:** Content Creation & Education

## Published Articles

### Dev.to: Building a CMS-Level Firewall

- **Title:** \"Building a CMS-Level Firewall: Why Application Context Matters\"
- **URL:** Read Article →
- **Topics:** Application security, ProcessWire, firewall architecture, threat detection
- **Impact:** 5,000+ views, featured in ProcessWire newsletter
- **Content:** Deep technical analysis of WireWall module architecture, explaining benefits of application-level security over traditional network firewalls

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### Authentik SSO Integration Guide

- **Title:** \"Authentik SSO Guide\"
- **URL:** Read Article →
- **Topics:** Single Sign-On, Authentik, OAuth2, SAML, authentication architecture
- **Content:** Comprehensive guide on implementing Authentik SSO for web applications with step-by-step instructions

## ProcessWire Module Documentation

- Comprehensive README files for all 10+ published modules
- Installation and configuration guides
- API documentation with code examples
- Troubleshooting sections and FAQs
- Video tutorials (planned)

## Community Engagement

- **ProcessWire Forums:** Active member helping developers with technical questions
- **GitHub:** Maintain repositories with clear documentation and issue responses
- **Code Reviews:** Provide constructive feedback on community contributions
- **Stack Overflow:** Answer questions related to ProcessWire, PHP, and e-commerce

## Knowledge Sharing Topics

- ProcessWire module development
- Performance optimization techniques
- Security best practices
- E-commerce architecture
- Database design and optimization
- Cloud infrastructure and DevOps

## Future Plans

- Launch technical blog on smnv.org
- Video tutorial series for ProcessWire developers
- Online course on e-commerce platform development

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- Conference talks at ProcessWire and PHP events

## Media

**LQRS.com - 10,000+ Spirits Database**
https://lqrs.com

**ProcessWire Modules - 10+ Published**
https://processwire.com/modules/author/maxim-semenov/

**Modenza - Perfect 100 PageSpeed**
https://modenza.org

**Maksant.com - Business Portfolio**
https://maksant.com

**Design.smnv.org - UI/UX Showcase**
https://design.smnv.org

**Altapost - Enterprise Logistics Platform**
https://altapost.de

**Plaza Spa Hotel - Award-Winning Website**
https://kislovodsk.plaza.spa

**InputUI - Design System**
https://design.smnv.org/case/input-ui/

**WireWall - Advanced Security Firewall for ProcessWire CMS**
https://wirewall.org

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## Skills

### Backend Development & Architecture

## PHP

**Expert**

Type: Hard

Experience: 20 years

Two decades of professional PHP development from procedural to modern OOP practices. Deep expertise in: PHP 7.x and 8.x with modern features (type declarations, attributes, JIT compiler) Object-oriented design patterns (MVC, Factory, Singleton, Observer) Composer dependency management PSR standards (PSR-4 autoloading, PSR-12 coding style) Performance optimization and profiling Security best practices (input validation, SQL injection prevention, XSS protection)

## MySQL

**Expert**

Type: Hard

Experience: 20 years

Expert-level database design and optimization: Complex database schema design with normalization Query optimization for sub-100ms response times Indexing strategies for high-performance queries Stored procedures and triggers Replication and high-availability setups Database performance monitoring and tuning

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### ProcessWire CMS

**Master**

Type: Hard

Experience: 10 years

Recognized expert in ProcessWire ecosystem: Published 10+ modules serving 1000+ installations Deep understanding of ProcessWire API and architecture Custom module development (Fieldtypes, Inputfields, Process modules) Hook system for extending functionality Template and selector API mastery Performance optimization techniques Active community contributor and technical advisor

### Node.js

**Master**

Type: Hard

Experience: 5 years

Server-side JavaScript for modern web applications: Express.js for REST APIs Real-time applications with Socket.io Microservices architecture npm package management

### REST APIs

**Expert**

Type: Hard

Experience: 15 years

Extensive API development experience: RESTful API design following best practices Authentication (OAuth2, JWT, API keys) Rate limiting and throttling Versioning strategies API documentation (OpenAPI/Swagger) Third-party API integrations (Stripe, Shopify, shipping carriers)

### PostgreSQL

**Advanced**

Type: Hard

Experience: 8 years

Advanced relational database for complex applications

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### Laravel

**Master**

Type: Hard

Experience: 3 years

Modern PHP framework: Eloquent ORM and query builder Blade templating engine Used in UnGig.org project with Waterhole forum

### Yii Framework

**Master**

Type: Hard

Experience: 3 years

High-performance PHP framework used in Altapost enterprise platform

## Frontend Development & Performance

### JavaScript

**Expert**

Type: Hard

Experience: 20 years

Master-level JavaScript expertise: Vanilla JavaScript and modern ES6+ features DOM manipulation and event handling Async/await and Promise patterns Module systems (ES6, CommonJS) Performance optimization and memory management Cross-browser compatibility

### HTML5/CSS3

**Expert**

Type: Hard

Experience: 20 years

Semantic markup and modern CSS: Semantic HTML5 elements for accessibility and SEO CSS Grid and Flexbox for layouts CSS custom properties (variables) Animations and transitions Progressive enhancement strategies

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### Tailwind CSS

**Expert**

Type: Hard

Experience: 5 years

Utility-first CSS framework mastery: Custom Tailwind configurations and themes Created InputUI design system with Tailwind Plugin development for custom utilities JIT compiler for optimal performance Responsive design with mobile-first approach Used across 20+ client projects

### Alpine.js

**Advanced**

Type: Hard

Experience: 4 years

Lightweight reactive framework: Component-based architecture Used for interactive UI components Integrates seamlessly with Tailwind CSS Perfect alternative to heavier frameworks for simple interactions

### jQuery

**Expert**

Type: Hard

Experience: 15 years

Legacy JavaScript library: DOM manipulation and AJAX Plugin development Maintaining legacy codebases

### React

**Basic**

Type: Hard

Experience: 2 years

Modern JavaScript framework for complex UIs

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### Responsive Design

**Expert**

Type: Hard

Experience: 15 years

Mobile-first responsive design expertise: Fluid layouts and flexible grids Media queries and breakpoint strategies Touch-friendly interfaces Performance optimization for mobile devices 70%+ mobile traffic across all projects

### Performance Optimization

**Expert**

Type: Hard

World-class performance engineering: Perfect 100 PageSpeed scores achieved Core Web Vitals optimization (LCP, FID, CLS) Lazy loading strategies Image optimization (WebP, responsive images, CDN) Critical rendering path optimization Code splitting and bundling Caching strategies (browser, server, CDN) Sub-second load times on production sites

## CMS & E-commerce Platforms

### ProcessWire CMS

**Advanced**

Type: Hard

Experience: 10 years

Recognized ProcessWire expert: 10+ published modules (1000+ installations) Module development (Fieldtypes, Inputfields, Process) API mastery (Pages, Fields, Templates, Selectors) Performance optimization techniques Security best practices Community leadership and technical support

### WordPress

**Expert**

Type: Hard

Experience: 7 years

Comprehensive WordPress expertise: Custom theme development Plugin development and customization WooCommerce e-commerce implementations Gutenberg block development REST API and headless WordPress Performance optimization and caching

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### Shopify

**Advanced**

Type: Hard

Experience: 8 years

Shopify platform development: Custom Liquid theme development Shopify Plus features and implementations Third-party app integrations Checkout customizations Subscription and recurring billing Multi-currency and international setups

### WooCommerce

**Expert**

Type: Hard

Experience: 7 years

WordPress e-commerce specialization: Custom checkout flows and product types Payment gateway integrations Inventory management customizations B2B features and pricing

### Drupal

**Expert**

Type: Hard

Experience: 7 years

Enterprise CMS for complex requirements

### BigCommerce

**Basic**

Type: Hard

Experience: 3 years

### PrestaShop

**Basic**

Type: Hard

Experience: 3 years

### HubSpot CMS

**Basic**

Type: Hard

Experience: 2 years

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### Statamic

**Basic**

Type: Hard

## Design & User Experience

### Figma

**Advanced**

Type: Hard

Experience: 6 years

Modern design and prototyping tool: UI/UX design for web and mobile Component libraries and design systems Interactive prototypes for user testing Collaboration with design teams Design tokens and variables Auto-layout for responsive designs

### UI/UX Design

**Expert**

Type: Soft

Experience: 15 years

End-to-end product design expertise: User research and competitive analysis Information architecture and user flows Wireframing (low-fi and high-fi) Visual design and branding Usability testing and iteration Accessibility-focused design (WCAG 2.1) 7 years professional UI/UX role at Altapost

### Sketch

**Advanced**

Type: Hard

Experience: 8 years

Vector design tool for UI/UX work

### Adobe Photoshop

**Advanced**

Type: Hard

Experience: 15 years

Image editing and design: Photo retouching and manipulation Marketing materials and graphics Web mockups and prototypes

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### Adobe XD

**Basic**

Type: Hard

Experience: 3 years

### InVision

**Basic**

Type: Hard

Experience: 4 years

### Wireframing

**Expert**

Type: Soft

Low-fidelity and high-fidelity wireframing for rapid prototyping and stakeholder communication

### Prototyping

**Expert**

Type: Soft

Interactive prototypes for user testing and development handoff

### Usability Testing

**Advanced**

Type: Soft

User testing methodologies and iterative design improvements

### Information Architecture

**Advanced**

Type: Soft

Content organization, navigation design, taxonomy development

### Design Systems

**Advanced**

Type: Soft

Created InputUI design system with comprehensive component library

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## Infrastructure & DevOps

### Linux/Ubuntu

**Advanced**

Type: Hard

Experience: 15 years

Server administration and operations: Package management (apt, dpkg) User and permission management Systemd service management Security hardening and firewall rules Bash scripting for automation Log analysis and troubleshooting

### Git

**Advanced**

Type: Hard

Experience: 12 years

Version control mastery: Branching strategies (Git Flow, GitHub Flow) Pull requests and code reviews Conflict resolution and rebasing Repository management and maintenance

### GitHub

**Advanced**

Type: Hard

Experience: 10 years

10+ open-source repositories maintained

### GitLab

**Advanced**

Type: Hard

Experience: 8 years

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### Nginx

**Advanced**

Type: Hard

Experience: 10 years

Web server configuration: Reverse proxy setups SSL/TLS certificate management Load balancing and caching Performance tuning

### Apache

**Advanced**

Type: Hard

Experience: 15 years

Traditional web server with mod_rewrite, virtual hosts, .htaccess

### AWS

**Basic**

Type: Hard

Experience: 3 years

Cloud services: EC2 instances and auto-scaling S3 storage and CloudFront CDN RDS databases Route 53 DNS

### Azure

**Basic**

Type: Hard

Experience: 2 years

### CloudPanel

**Advanced**

Type: Hard

Experience: 3 years

Modern server control panel for simplified management

### HestiaCP

**Basic**

Type: Hard

Experience: 2 years

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### Memcached

**Basic**

Type: Hard

Experience: 3 years

In-memory caching for performance optimization

### CI/CD

**Basic**

Type: Soft

Continuous integration and deployment pipelines

## Tools & Project Management

### Agile/SCRUM

**Advanced**

Type: Soft

Agile methodology practitioner: Sprint planning and retrospectives Daily standups and progress tracking User story writing and estimation Backlog grooming and prioritization 3+ years in Agile teams at Altapost and National Sales

### Jira

**Advanced**

Type: Hard

Experience: 6 years

Issue tracking and project management

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### Confluence

**Basic**

Type: Hard

Experience: 4 years

Documentation and knowledge base

### Trello

**Advanced**

Type: Hard

Experience: 8 years

Kanban-style project management

### Asana

**Basic**

Type: Hard

Experience: 3 years

### Slack

**Advanced**

Type: Hard

Experience: 8 years

Team communication and collaboration

### Microsoft Teams

**Basic**

Type: Hard

Experience: 3 years

### Composer

**Advanced**

Type: Hard

Experience: 10 years

PHP dependency management

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### npm/Node Package Manager

**Advanced**

Type: Hard

Experience: 8 years

JavaScript package management

## Marketing & Search Optimization

### SEO Optimization

**Advanced**

Type: Soft

Experience: 15 years

Search engine optimization expertise: On-page SEO (titles, meta descriptions, headers) Technical SEO (site speed, mobile-friendliness, crawlability) Content strategy and keyword research Link building and off-page SEO Local SEO and Google Business SEO audits and recommendations

### Schema.org Markup

**Advanced**

Type: Hard

Experience: 8 years

Structured data for search engines: Product, Article, Organization schemas Rich snippets implementation JSON-LD format Google Search Console integration

### Google Analytics

**Advanced**

Type: Hard

Experience: 12 years

Web analytics and user behavior tracking

### Google Ads

**Basic**

Type: Soft

Experience: 5 years

PPC campaign setup and management

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### Facebook Ads

**Basic**

Type: Soft

Experience: 5 years

### Email Marketing

**Basic**

Type: Soft

Experience: 5 years

Email campaign creation and automation

### Hotjar

**Basic**

Type: Hard

Experience: 3 years

Heatmaps and user session recording

### UsabilityHub

**Basic**

Type: Hard

Experience: 2 years

Remote user testing platform

## Professional Skills & Cognitive Strengths

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## Neurodivergent Problem-Solving (ADHD)

**Expert**

Type: Soft

Cognitive diversity as competitive advantage: Hyper-Focus: Deep concentration enabling 8-12 hour problem-solving sessions, critical for complex debugging and architectural challenges Pattern Recognition: Rapid identification of system-wide implications, edge cases, and optimization opportunities across codebases Creative Solutions: Non-linear thinking generates unconventional approaches traditional methods miss—evidenced by 10+ open-source modules and perfect PageSpeed scores Parallel Processing: Natural ability to context-switch between multiple projects, technologies, and priorities effectively Obsessive Optimization: Drive for perfection resulting in world-class performance (100 PageSpeed), clean architectures, and comprehensive documentation Companies like Google, Microsoft, and SAP actively recruit neurodivergent engineers for these exact cognitive strengths. My ADHD isn't a limitation—it's my competitive edge in solving complex engineering challenges.

## Problem Solving

**Expert**

Type: Soft

Complex technical problem-solving: Analytical thinking and root cause analysis Creative approaches to architectural challenges Performance debugging and optimization 20+ years resolving diverse technical challenges

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## Project Management

**Advanced**

Type: Soft

Full-cycle project leadership: Requirements gathering and scope definition Timeline estimation and resource planning Stakeholder communication and expectation management Risk identification and mitigation Delivered 200+ projects on time and within budget

## Client Communication

**Advanced**

Type: Soft

Direct client engagement skills: Translating technical concepts for non-technical stakeholders Active listening and requirement clarification Managing expectations and delivering difficult news Building long-term professional relationships 20+ years client-facing consulting experience

## Technical Documentation

**Advanced**

Type: Soft

Comprehensive documentation practices: API documentation and developer guides User manuals and training materials Code comments and inline documentation Published technical articles (Dev.to, Qiita) README files for 10+ open-source modules

## Analytical Thinking

**Expert**

Type: Soft

Data-driven decision making and systematic problem analysis

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## Critical Thinking

**Expert**

Type: Soft

Evaluating solutions, identifying trade-offs, and making informed technical decisions

## Creativity

**Advanced**

Type: Soft

Innovative approaches to technical and design challenges

## Team Collaboration

**Advanced**

Type: Soft

Cross-functional teamwork: Collaboration with designers, PMs, and engineers Code reviews and pair programming Knowledge sharing and mentorship Constructive feedback and conflict resolution

## Time Management

**Advanced**

Type: Soft

Managing multiple projects and priorities with strict deadlines

## Adaptability

**Expert**

Type: Soft

Rapid learning and technology adoption: Quick mastery of new frameworks and tools Versatile skill set across full stack Comfortable with ambiguity and changing requirements 20 years staying current with evolving technologies

## Self-Motivation

**Expert**

Type: Soft

20 years as independent consultant requiring exceptional self-direction and initiative

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### Technical Leadership

**Advanced**

Type: Soft

Mentoring developers, establishing coding standards, architectural guidance

## Education

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## Bachelor's Degree

Rostov State Economic University (RINH) (https://rsue.ru)

**Type:** Class

**Period:** Sep 2005 - Sep 2010

**Location:** Rostov-on-Don

**Study Area:** Computer Science

**Score:** Graduated with Honors

### Academic Foundation

Comprehensive computer science education combined with economics and business principles, providing unique perspective for understanding enterprise requirements and ROI-driven development.

### Relevant Coursework

- **Computer Science Core:** Data Structures & Algorithms, Object-Oriented Programming, Database Systems, Software Engineering, Computer Networks
- **Advanced Topics:** System Design & Architecture, Network Security, Web Technologies, Software Testing
- **Business & Economics:** Business Analytics, Project Management, Economics of Information Systems, Digital Business Strategy

### Thesis Project

**Title:** "E-commerce Platform Architecture for Small-Medium Businesses"

Designed and prototyped e-commerce platform architecture addressing scalability, security, and user experience challenges. This thesis became the foundation for 20-year specialization in e-commerce platform development.

> Computer Science • Software Engineering • Database Systems • Business Economics • E-commerce Architecture

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## Associate of Information Technology

Montgomery County Community College (https://mc3.edu)

**Type:** Course

**Period:** Sep 2021 - May 2022

**Location:** Blue Bell, PA, US

**Study Area:** Information Technology, Web Development (ITWD)

## Advanced Web Development

Continued professional development focusing on modern web technologies, responsive design, and full-stack development methodologies in U.S. educational environment.

## Key Coursework

- Modern JavaScript frameworks and libraries
- Responsive web design and mobile-first approaches
- Database design and SQL optimization
- Web server administration and deployment
- UI/UX design principles

## Focus Areas

- Web development best practices and standards
- Content management systems
- Client-side and server-side programming
- Professional communication in technology

> Advanced Web Development • Modern Frameworks • Full-Stack Technologies • Web Development • Information Technology • Professional Communication

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**AWS Solutions Architect:** Self-study through hands-on projects, official documentation, and production deployments. Practical experience with EC2, S3, CloudFront, RDS, Route 53.

**Google PageSpeed Optimization:** Achieved mastery through experimentation and real-world optimization. Perfect 100 scores on production websites demonstrate world-class expertise.

**ProcessWire Core Architecture:** Deep learning through community engagement, module development, and 10+ published modules. Recognized expert in ProcessWire ecosystem.

**Headless Commerce Architecture:** Self-directed learning through client projects building API-first e-commerce platforms. Expertise in microservices, REST APIs, and omnichannel experiences.

**Security Best Practices:** Implemented through WireWall module development, HIPAA-compliant healthcare platforms, and PCI DSS payment processing.

**Performance Engineering:** Mastered through 200+ production deployments, achieving sub-second load times and 99.9% uptime across enterprise platforms.

**Technical Writing & Documentation:** Developed through Dev.to publications, ProcessWire module documentation, and community education initiatives.

**UI/UX Design:** 7 years professional experience at Altapost, self-taught Figma mastery, created InputUI design system used across 20+ projects.

**Database Optimization:** 20 years hands-on experience designing schemas, optimizing queries (<100ms response times), and managing high-transaction databases.

**Cloud Infrastructure:** Self-directed learning through AWS and Azure deployments, server administration, and DevOps practices.

## Certifications

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## ProcessWire Module Developer - Recognized Contributor

ProcessWire Community

**Issued: 2020** **Expires: Does not expire**

Open Source Leadership Published 10+ ProcessWire modules demonstrating deep understanding of ProcessWire API, module development best practices, and commitment to open-source community. Published Modules WireWall: Application-level firewall with advanced threat detection WireNPS: Net Promoter Score analytics platform Square Images: Perfect image cropping solution FieldtypeFileB2: Backblaze B2 cloud storage integration Embedr: Dynamic content embed management Timezone: Flexible timezone handling AgeWire: Age verification system LQRS URL Shortener: Professional URL shortening Media Platform Profile: Complete media management solution 2048 Game: Interactive admin panel game Community Impact 1000+ active installations worldwide Consistent 5-star ratings from users Active support and regular updates Comprehensive documentation and examples Technical article published on Dev.to

https://processwire.com/modules/author/maxim-semenov/

## Google PageSpeed Perfect Score Achievement

Google PageSpeed Insights

**Issued: 2023** **Expires: Does not expire**

Performance Engineering Excellence Achieved perfect 100/100 score on production website (CraftedInterior.com) across all metrics on both mobile and desktop platforms. Officially verified by Google PageSpeed Insights. Metrics Achieved Performance: 100/100 Accessibility: 100/100 Best Practices: 100/100 SEO: 100/100 LCP: <1.2s (Good) FID: <50ms (Good) CLS: <0.1 (Good) This certification demonstrates world-class expertise in web performance optimization, Core Web Vitals, and user experience engineering.

https://pagespeed.web.dev/analysis/https-craftedinterior-com/6dsjob17lh

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## Languages

**Russian**

Native

**English**

Proficient

## References

**Serhii Kovalenko**

## Awards & Recognition

### ProcessWire Module Ecosystem Contributor

**Year:** 2020-2025

Recognized as significant contributor to ProcessWire open-source ecosystem through publication of 10+ modules serving 1000+ installations globally.

### Recognition Highlights

- Top 20 module contributor in ProcessWire ecosystem
- Modules featured in ProcessWire newsletters and documentation
- Active community supporter through forums and technical guidance
- Published technical article on Dev.to about WireWall architecture
- Consistent 5-star ratings across all published modules

This recognition demonstrates technical leadership, commitment to open-source values, and ability to create production-ready solutions used by thousands of developers worldwide.

https://processwire.com/modules/author/maxim-semenov/

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## Perfect PageSpeed Score Achievement

**Year:** 2025

Achieved perfect 100/100 score on production website (CraftedInterior.com) across all metrics, demonstrating world-class performance optimization expertise.

### Achievement Details

- Perfect scores: Performance (100), Accessibility (100), Best Practices (100), SEO (100)
- All Core Web Vitals in \"Good\" range (LCP <1.2s, FID <50ms, CLS <0.1)
- Verified on both mobile and desktop platforms
- Sub-second load times on 4G connections
- Industry-leading optimization techniques demonstrated

Places developer in top 1% of web performance engineers globally. Few production websites achieve perfect scores across all PageSpeed metrics.

https://pagespeed.web.dev/analysis/https-craftedinterior-com/6dsjob17lh

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## Plaza Spa Hotel - Industry Recognition

**Year:** 2022

Website recognized as one of the best in its category for innovative use of technology and superior user experience in hospitality sector.

### Innovation Highlights

- Interactive 3D floor plans and virtual tours
- Real-time booking integration with property management system
- Live webcams and HD video integration
- Advanced analytics with session recording (Smartlook)
- Multi-language support and international payment processing

### Business Impact

- 25% increase in direct bookings vs. OTA channels
- 30% increase in online revenue year-over-year
- Featured as case study in hospitality technology publications

https://kislovodsk.plaza.spa

## Technical Writing - Published Author

**Year:** 2024

Published technical articles contributing to developer education and knowledge sharing in web development community.

### Publications

- \"Building a CMS-Level Firewall: Why Application Context Matters\" (5,000+ views)
- \"Authentik SSO Integration Guide\" on Qiita (Russian developer community)
- Comprehensive documentation for 10+ open-source modules

Demonstrates commitment to developer education, technical communication skills, and thought leadership in web security and CMS development.

https://dev.to/maximalex

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# Interests

### Web Development Innovation & Performance Engineering

Modern web technologies JAMstack architecture Headless CMS Performance optimization Core Web Vitals Progressive Web Apps Web security API-first design Microservices Serverless architecture Edge computing WebAssembly

### Open Source Contribution & Community Leadership

ProcessWire ecosystem Module development Code sharing Technical writing Developer education Forum support GitHub contributions Open-source advocacy Knowledge sharing Mentorship

### Spirits & Mixology

Whiskey appreciation Spirits education Cocktail techniques Distillery tours Tasting notes Spirits database curation LQRS.com platform Mixology innovation Spirits industry trends

### Community Building & Social Impact

Helping gig economy workers Immigrant support Career development resources UnGig.org community platform Peer mentorship Workforce development Social entrepreneurship Inclusive hiring advocacy

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### Technical Writing & Education

**Documentation** **Tutorials** **API guides** **Blog articles** **Developer resources** **Community education** **Technical communication** **Knowledge transfer**

### Neurodiversity in Tech

**ADHD cognitive strengths** **Neurodivergent engineering** **Cognitive diversity** **Different thinking styles** **Hyper-focus advantages** **Pattern recognition** **Creative problem-solving** **Inclusive tech culture**

## Exhibitions

### CES

**Venue:** Las Vegas Convention Center

**Location:** Las Vegas, NV

**Year:** 2026

## Publications

**Building a CMS-Level Firewall: Why Application Context Matters** - Dev.to Developer Community
https://dev.to/maximalex/building-a-cms-level-firewall-why-application-context-matters-52kp

**Authentik SSO Integration Guide with ProcessWire**

smnv.org