

Dane Petersen

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PROFESSIONAL SUMMARY

Senior Systems Architect who bridges legacy technical debt and modern cloud-native infrastructure. Proven ability to pivot seamlessly across AWS/Azure, AI integrations, and complex CMS ecosystems to deliver scalable, high-performance solutions. Over 12 years of experience engineering across the full stack—from modernizing monolithic Drupal applications to orchestrating real-time Node.js microservices and developing robust cross-platform mobile architecture.

CORE COMPETENCIES & SKILLS

- **Cloud & DevOps:** Amazon Web Services (AWS), Microsoft Azure, Docker, DDEV, CI/CD pipelines (CodePipeline), Microservices
- **AI & Emerging Tech:** LLM Integration, AIOps, Automated Code Refactoring, Interactive 3D (Three.js, Canvas)
- **CMS Ecosystems:** Deep expertise in Drupal (versions 5 through 11), WordPress, Strapi
- **Languages & Frameworks:** Node.js, PHP (Symfony), C# (.NET), JavaScript/TypeScript (React, jQuery, Vanilla), Python, HTML5/Twig
- **Mobile Development:** Flutter, Xamarin, Java/Android Native, React Native

PROFESSIONAL EXPERIENCE

August Ash | Bloomington, MN (Hybrid)

Developer | Dec 2023 – Present

- **Enterprise Infrastructure & Scale:** Lead backend engineering for high-profile media properties including WHYY.org, optimizing server architecture, database performance, and advanced caching strategies to seamlessly support the major NPR/PBS affiliate processing over 1,000,000+ monthly visits.
- **AIOps & Tooling Development:** Architected and deployed V.I.N.CENT, a custom observability agent that automates fleet-wide monitoring across 300+ client websites, enabling a 9-person engineering team to manage enterprise-scale infrastructure without adding headcount.
- **High-Volume E-Commerce:** Architect and scale enterprise B2B/B2C e-commerce platforms, such as shop.mnair, engineering complex product catalog structures, API integrations, and secure checkout workflows for massive transaction volumes.
- **Predictive Uptime Monitoring:** Engineered automated anomaly detection within the V.I.N.CENT platform by correlating edge cache hit rates, origin PHP load, and historical traffic baselines to proactively identify silent infrastructure degradation before it impacts site uptime.
- **Cloud Modernization:** Drive the modernization of legacy applications, successfully migrating monolithic platforms to scalable, cloud-native infrastructures across both AWS and Azure environments.

fjorge | Minneapolis, MN

Developer | Nov 2021 – Dec 2023

- Led the end-to-end legacy modernization of a highly complex, monolithic Drupal 7 application to Drupal 10, engineering custom migration paths for millions of nodes while preserving critical data relationships and

integrity.

- Operated with high autonomy as the sole technical lead for a massive portfolio of enterprise Drupal sites, taking full ownership of backend architecture, maintenance, and deployments.
- Standardized and documented development workflows for the wider agency, incorporating automated testing (Behat) to significantly improve code quality and delivery speed.
- Engineered scalable backend architectures designed to support high-traffic e-commerce environments and complex API integrations.

NetWork Center | Fargo, ND

Software Developer Project Lead | Aug 2013 – Nov 2020

- **Mobile & GPS Engineering:** Engineered and launched a diverse portfolio of native mobile applications (Java/Android, iOS), specializing in the integration of complex device-level features such as real-time GPS tracking, mapping, and location-based services.
- **AWS Cloud Architecture:** Architected and provisioned foundational AWS cloud infrastructure from the ground up, designing highly available backend APIs and databases to support high-traffic mobile applications and enterprise web platforms.
- **Technical Leadership:** Led the end-to-end design, development, and deployment of comprehensive web and mobile solutions (.NET, PHP, Drupal), managing cross-functional project timelines, client communications, and technical execution from concept to launch.

INDEPENDENT ENGINEERING & OPEN SOURCE

Freelance Systems Architect & Full-Stack Developer | Jun 2013 – Present

- **Open-Source Maintainer (Drupal.org):** Authored and actively maintain Enhanced Taxonomy Manager (ETM) and Enhanced Menu Manager (EMM), currently deployed on 90+ production sites. Engineered a zero-latency, AJAX-driven UI capable of processing vocabularies exceeding 100,000 terms without performance degradation.
- **AI & Agent Systems:** Build LLM-powered developer tooling and multi-agent workflows: autonomous agents that audit, diagnose, and repair production systems, featuring retrieval and persistent-memory layers for accuracy across long-running sessions.
- **Game & Interactive 3D Development:** Design and build browser-native interactive experiences, including DireWatt, a psychological survival simulation using HTML5 Canvas and Three.js, developed from original narrative and systems design through playable build.
- **Developer Infrastructure:** Architect high-performance local dev environments—native Docker + DDEV stacks tuned for ARM hardware (e.g., Raspberry Pi 5)—cutting build and rebuild times for daily development work.
- **Client Sites & Applications:** Ship production web apps end to end for freelance clients, covering architecture, backend, front end, and deployment.

EDUCATION & CERTIFICATIONS

- North Dakota State University | Bachelor's Degree, Computer Science (Graduated 2024)
- Bismarck State College | Associate of Arts and Sciences (AAS), Application Development
- Certifications: AWS Certified Solutions Architect – Associate (AWS Elemental) | AWS Certified Cloud Practitioner

