

Douglas John Vojir

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WORK EXPERIENCE

Saguaro Wave LLC, Tucson, AZ

Principal Software Development Engineer / Architect · Mar 2026 – Present

Enguard.io

Stack: TypeScript, Next.js 16 (App Router, React 19), PostgreSQL on Neon with Drizzle ORM, NextAuth v5, and Vercel; Axiom and Sentry for observability; Vitest, PGlite, and Playwright for testing.

Consolidated a standalone Express backend into a full-stack Next.js platform for identity protection, email security, and scam detection.

- Built integrations with Pango (identity monitoring), Ironscales (email security), and Scamnetic (scam scoring): webhook ingestion, enrollment lifecycle state, PII scrubbing at ingestion and at rest, and AI-assisted analysis of high-risk alerts.
- Took over an unstable backend at handoff; corrected the third-party integrations, designed user administration and the invitation flow, and hardened the system for production load.

EmbraceRX

Stack: Next.js, TypeScript, Postgres/Supabase, and Vercel.

Architected a multi-tenant telehealth commerce platform.

- Rebuilt the order-to-fulfillment pipeline end to end: payments, EHR/e-prescribing webhooks, catalog and pricing, and automated order reconciliation.
- Made an unreliable inherited system production-ready: repository pattern, retries, HIPAA/PHI/PII hardening, and observability.

iSpot.tv, Bellevue, WA

Senior Software Development Engineer · Oct 2013 – Apr 2023

- Moved the platform to a message-queue architecture on RabbitMQ (specification, provisioning, management, clustering) and did the MySQL data modeling.
- Rewrote the ad calibration and scheduling services at the core of iSpot's business, and built the system for handling schedule disruptions during live events.
- Early DevOps work: automated server creation and normalization in Bash, moved builds to Gradle for dependency management, and moved the platform to the Spring Framework.
- Also Python (Big Data team), PHP (front end), and Groovy automation. Taught Git; early on also covered office management, program management, and recruiting.

Moz (formerly SEOmoz), Seattle, WA

Software Development Engineer · Jul 2012 – Oct 2013

- Big Data team: automated the web index server pool launch and index processing (Bash, AWS CLI, Python); analyzed processing times to target fixes, and optimized the C/C++ code.
- Launched the initial social data extraction framework (Java/Tomcat; Google+, Facebook, and Twitter APIs) and contributed to its second generation in Node/CoffeeScript with NSQ.

MediaNet Digital, Seattle, WA

Lead Platform Software Development Engineer · Oct 2009 – Jul 2012

- Led the team for the 100%-uptime MediaNet platform, including task scheduling and triage.
- Owned the full stack: Oracle PL/SQL, Java application and web layers, stream and download servers (Apache, mod_perl), and the CentOS servers and environments.
- Projects included radio services, discovery stabilization, CDN integration, UITS, migrating download servers to Apache 2/mod_perl 2, and dynamic MP3 re-headering.

Software Development Engineer, Platform · Feb 2007 – Oct 2009

Maintained and extended the MusicNet/MediaNet server-side platform (Java, Oracle PL/SQL): account management, application server, and discovery and fulfillment web services, using Spring, iBatis, XFire, Lucene, Clover, EasyMock, Ant, TestNG, and Quickbuild. Wrote a Java CLI for managing server properties.

Excell Data, Bellevue, WA

Software Development Engineer, Microsoft Virtual Earth 3D · Apr 2006 – Feb 2007

Wrote the Virtual Earth 3D installer from scratch (MSI, WiX, C++, and CLI), then designed and built a custom C++/ATL bootstrapper to replace the Visual Studio 2005 default. Also contributed JavaScript for the website and C# for the application UI.

MusicNet Inc., Seattle, WA

Software Development Engineer / Test, Platform · Oct 2004 – Apr 2006

Built and maintained automated testing for the platform web services (C#, Visual Studio 2005 unit testing), plus test automation for business logic (Java), subscription management (PL/SQL), e-commerce (MSSQL), and the MNSDK (C++). Ran LoadRunner monitoring and performance testing, customized and administered Jira, administered the QA backend, and was instrumental in a live datacenter move.

Siemens Business Services, Redmond, WA

Developer, Shared Resources Development, Microsoft Game Studios · Jul 2003 – Aug 2004

PC games setup: fixed and extended the legacy setup code (C/C++), and designed, documented, and built the next-generation setup engine and tools (C++, C#) on MSI and WiX. Co-designed the XML script and wrote its schema. Also anti-piracy work, VB test harnesses, COM objects, and localization.

Volt Computer Services, Bellevue, WA

Developer, Shared Resources Development, Microsoft Game Studios · Jan 2001 – Jan 2002

- *Train Simulator* and *Flight Simulator 2002*: developed the award-nominated media view help system (C++, Win32, GDI, some MFC) and localization; credited on both games.
- Keystone game content display system: in-game content display for the DirectX 8 API. C++ development and some lead work (task assignment and scheduling).

Raytheon, Tucson, AZ

Systems Engineer II, Autopilot Dept., Guidance, Navigation and Control Center · May 1999 – Jan 2001

BDA MicroGlider (battle damage assessment glider): GNC representative. GPS navigation and autopilot topology generation and validation; managed the 6-DOF simulation (Matlab/Simulink, with autopilot, navigation, aerodynamics, and equations of motion in C++); assisted with the embedded real-time flight code; staffed wind tunnel and flight tests.

The Boeing Company, Seattle, WA

Specialist Engineer, Stability and Control Aerodynamics · Feb 1997 – Apr 1999

High Speed Civil Transport (HSCT), NASA High-Speed Research program: simulation focal for the large non-linear FORTRAN 6-DOF simulation, developed with Boeing's industry and government partners, including verification and validation at remote sites. Control utilization studies, wind tunnel testing at NASA Langley, piloted simulation support at NASA Ames, and HP-UX migration focal for Aerodynamics.

Hughes Missile Systems Company, Tucson, AZ

Member of Technical Staff, Guidance, Navigation and Controls · Sep 1995 – Jan 1997

- AIM-9X: autopilot gain generation and sensitivity and stability analysis over the flight envelope for the Sidewinder upgrade; digital autopilot structural filter design; topology trades; 6-DOF coding and performance analysis; government proposal support.
- Evolved Sea Sparrow Missile (ESSM): improved autopilot performance with a multivariable design tool; actuator rate limit specification; non-linear 6-DOF analysis and implementation support.
- Advanced Medium Range Air-to-Air Missile (AMRAAM): autopilot topology trades and analysis with linear time-invariant methods; flexible body modeling; 6-DOF simulation use and maintenance.

University of Washington, Aeronautics and Astronautics Dept.

Teaching Assistant · Sep 1994 – Jun 1995

Taught and graded stability and control, applied mathematics, and aeromechanics.

Tulane University, Mechanical Engineering Dept.

Research Assistant · Jun 1992 – May 1993

Built an experimental apparatus for unsteady flow research, wrote and ran the FORTRAN simulation, and co-wrote a published article on the study.

EDUCATION

University of Washington, Seattle, WA

M.S. in Engineering, Aeronautics and Astronautics · Jun 1995

Control systems specialization. GPA 3.6/4.0. Thesis: *Multi-Variable Synthesis of a Low Order Lateral Axis Controller for a Large Subsonic Transport*

Tulane University, New Orleans, LA

B.S. in Mechanical Engineering · May 1993

GPA 3.22/4.00 (major 3.6/4.0).

HONORS

Tulane University National Merit Scholarship · Eagle Scout · Private Pilot