

Jeremy T Peterson

Software Architect | ML Researcher | Security and Network Engineer with 20+ years in the Medical, Finance and Manufacturing industries

Portland, OR
(503) 317-6820
jeremy.one@gmail.com

EXPERIENCE

Consulting — *Security Research and Development - 2024 - 2025*

Researched and developed several strategies for penetration testing with semi-automated agents utilizing LangChain, multiple LLM's and a variety of industry standard open-source infosec tools.

ZHealth Documentation — *Principal Architect - 2017-2024*

On a company-wide basis, researched and developed large Initiatives.

Analyzed gaps and designed significant changes for:

- Platform software stack (POC's, dotnet, MSSQL, Azure)
- Customer integration strategy (EDL with hospitals)
- Security (software, network, infrastructure)
- Business (testing, training, processes)

Based on that research, created and fostered multi-year initiatives that had continued research, design, implementation of a wide variety of projects::

- Migration of application from on-prem server to a cloud model
- Migrations of code to latest standards, including dotnet core 8.0
- Azure build and release pipelines
- Zero-trust security models
- SaaS SSO options including OpenID Connect and Smart On FHiR
- ML integration into existing product
- SoC2 and HIPAA certification implementation

Worked with product owners, customers, and devs to design features and architecture, cloud apps, databases, networks, and security.

A3o Studios — *Software, Network, and Security Consultant*

2016 - 2017 (Full-time) - 2010 - 2015 (Part-time)

Designed, developed and hosted a variety of industry specific web applications focused on increased KPI's, including:

- Finance tools for non-profit grants on an organization level – provided past and projected financial forecasts based on internal data and FTE scheduling
- B2B self-service portal for manufacturing industry specific warranty and parts delivery
- Penetration testing, security hardening for network infrastructure. Employee training for Portland based financial and tax companies.

PRIMARY CAREER SKILLS

dotnet core, c#, c++, PowerShell, Aspire, MVC, Git, SQL, JavaScript, Python, HTML/CSS.

Azure, AWS, Windows, Linux, Active Directory, DNS, Firewalls, Advanced networking and routing, Hardware troubleshooting, Data replication.

Cybersecurity, Penetration testing, Red/Blue teams, Forensic Analysis, Disaster Recovery and DR Exercises.

CI/CD, DevOps, Docker and containers, Azure DevOps and pipelines, Github actions, Terraform, Encryption, Certificates and Secret Management.

AI / Machine learning, LLMs, Agents, Model hosting and training, Image processing and generation, Data processing.

Solution Architecture, Solution Documentation.

Product Design, Project Management, Product owner, Jira, Agile in many forms.

Jeremy T Peterson

The Retirement Plan Company — *Software Engineer*
2015 - 2016

Developed and maintained SaaS web applications integral to directing the work of 100+ employees in day-to-day operations, and provided critical investment information to retirement plan sponsors.

Secured and refactored legacy web applications by implementing current best practices, focused highly on reducing technical debt, improving code quality, security, and performance.

Heintzberger | Payne Advisors — *Senior Technical Lead*
2004 - 2014

Senior Technical Lead, Architect, Department Manager — 2009 - 2014

- Designed, managed and participated in development of industry specific applications and services targeting B2B/SaaS users
- Supported IT growth as the company grew from \$100M to \$2B of assets under management
- Managed, directed and supervised a team that provided all development, support and technical services company wide.
- Ensured accurate and timely distribution of millions of dollars to retirement plan participants by developing an application for tracking all cash holdings across participants and accounts
- Ensured delivery of sensitive reports, files and messages to clients by developing a custom client portal

Software Engineer — 2006 - 2008

- Developed web application for publishing investment transactions and performance for high net worth individuals, as well as a set of tools to automatically export that data from existing systems
- Implemented and heavily customized CMS sites for external use
- Developed numerous graphical/charting reports for performance data analysis and client delivery

Network Administration, Application Support — 2004- 2005

- Managed the merger of all technical systems of two companies into a new single corporate entity
- Built, maintained and managed the technical infrastructure required for all business operations including, local, virtual and collocated servers, network infrastructure and employee devices

Portland, OR
(503) 317-6820
jeremy.one@gmail.com

RELEVANT PROJECTS

Researched and developed an open source peer-to-peer blob storage platform with a heavy focus on encryption, x509 certificate identities, and used distributed hash tables. Intended for use in distributed applications.

Custom web app for ranked-choice voting at live Portland film events, with ballot printing, real-time displays for tallies and current winner selection.

VOLUNTEERING

Volunteered with multiple nonprofits and small local businesses for a variety of roles, est. 200 hours a year.

INTERESTS

Film, photography, design.

Led small teams in multiple high-pressure, short duration film competitions.

CTF's

Submitted to the Blackhat music competition, we created an MP3 with an embedded ZIP in the ID3 tags, with multiple specialized challenges.

2022 - Won a Pwnie!

2023 - 2nd CTF

<https://projectmammoth.com>