ANDREW WALLER

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Staff Software Engineer | Backend Architecture & Tooling

Staff Software Engineer and Technical Lead with over two decades of experience architecting high-performance back-end systems and developer platforms. Deep expertise in **Python**, **containerized infrastructure**, and **automation frameworks** that boost productivity and reliability across all engineering teams. Passionate about building scalable solutions and elevating **developer experience** through thoughtful tooling and workflow design.

Languages & Frameworks: *Python, Django, Celery, Django REST, FastAPI*
Infrastructure & Devops: *Docker, Kubernetes, CI/CD Pipelines, Ephemeral Environments*
Tooling & Automation: *Developer Productivity, Test Automation, Source Control (Git, Perforce)*
Other: *Unreal Engine, Technical Writing, Cross-Functional Collaboration, Software Development Lifecycle*

PROFESSIONAL EXPERIENCE

Founder & Lead Developer — Indie Game Project "Dare To Follow"   **June 2024 - Present**
74Dev
Founded and led the development of "*Dare To Follow*", a single-player, top-down real-time RPG designed to evoke the classic tabletop miniature experience. Built in **Unreal Engine**, the project involved full ownership of **design, engineering, content creation, and production**. Operated as a one-person studio, rapidly mastering new technologies and delivering complex systems independently through creative problem-solving and technical execution.

- **Designed and implemented core game systems** in Unreal Engine, including gameplay logic, AI behavior, animation state machines, and interactive environments.
- **Created and integrated sound effects, visual effects, and animation systems**, demonstrating versatility across disciplines and technical artistry.
- Delivered a **fully functional prototype and gameplay system**, laying the groundwork for future content expansion and potential publishing opportunities.
- **Learned Unreal Engine, Blueprints, and Unreal C++ libraries** from the ground up, building production-quality features and performance-optimized codebases.
- **Managed full production lifecycle** — from concept and design documentation to iterative development and milestone tracking using Git and task management systems.

Principal Software Engineer, Platform Infrastructure   **November 2021 – May 2024**
GoodRx, Inc.
- Designed and implemented **custom tooling for microservice development**, extending a popular open-source Kubernetes cluster management tool (K9s) to streamline local development and deployment workflows.
- Enabled **inner-loop development** within a remote Kubernetes environment, offloading CPU-intensive workloads from local machines to **scalable cloud infrastructure**, improving developer efficiency and consistency across environments.
- Led the **architecture and implementation** of a custom REST service to internalize URL redirection previously handled by a CDN. **Eliminated external dependency risks, and optimized performance and operational costs**.

Principal Software Engineer   August 2016 – November 2020
Manager – Engineering Tools Team   July 2014 – August 2016
Sr. Software Engineer   May 2012 – July 2014
Palo Alto Networks, Inc.

- **Architected and led development** of multiple internal **Python** systems, including release management, branch integration, and engineering infrastructure tools, significantly improving build reliability and developer productivity.
- **Designed and maintained CI/CD and publishing pipelines**, introducing Docker-based containerization to decouple builds from host environments and accelerate deployment cycles.
- **Developed internal web applications** (Python/Django) to centralize project scheduling and reporting, replacing manual spreadsheet processes and improving visibility across teams.
- **Drove department-wide migration** to the Atlassian tool suite, standardizing collaboration and issue tracking for hundreds of engineers.
- **Managed hiring and team growth** during a rapid expansion period, building a high-performing engineering tools organization.
- **Oversaw R&D infrastructure operations**, including two major server room relocations to support scalability and business continuity.

Sr. Staff Engineer   March 2011 – April 2012
Stoke, Inc.

- **Modernized internal development infrastructure** by upgrading R&D tooling, migrating source control from CVS to Git, and implementing a Gerrit-based continuous integration system to improve code quality and collaboration.

Manager – Engineering Tools and Automation   March 2007 – February 2011
Force10 Networks, Inc.

- **Designed and implemented a custom Python-based CI build system** and managed release engineering and Perforce SCM for a **distributed team spanning Santa Clara and Chennai**, improving coordination and build reliability.

Software Engineer   December 2005 – December 2006
Veoh Networks, Inc.

- **Early engineering hire (employee #11)** at a rapidly growing startup, where I **introduced automated testing, build, and deployment systems** in Python that laid the foundation for scalable software delivery as the company secured over **$70M in venture funding**.

Software Engineer   July 2003 – December 2005
Websense, Inc.

- Began as a **Test Engineer**, developing an automated, data-driven test suite that **doubled test coverage** despite a 20% team reduction, and later promoted to **Software Engineer**, where I built a **C++ library interface** enabling direct Windows XP Firewall integration for the company's flagship security product.

Sr. QA Test Engineer   January 2001 – April 2003
McAfee / PGP (Network Associates, Inc.)

- **Designed and implemented a Perl-based automated test suite** for enterprise command-line encryption software, achieving **95% test coverage** and **reducing product cycle time by nearly 50%**, enabling expanded platform and OS support with a small team.