Ryan Doering

SOFTWARE DEVELOPER CORVALLIS, OR

OBJECTIVE

To secure a challenging role where I can leverage my engineering skills, adaptability, and full-stack problem-solving to build effective, high-quality solutions that enhance user experiences and advance team and business objectives.

CONTACT

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EDUCATION

Oregon State University —
B.S. Computer Science
(Expected Apr 2026)
Focus Area:
Web & Mobile Development

SKILLS

- **Languages:** Python, C, C++, C#, JavaScript, SQL, Bash
- **Systems / HPC:** xv6 kernel, RISC-V, OpenMP, MPI, CUDA, OpenCL, memory systems, paging, multithreading
- **Backend / Cloud:** Flask, .NET 8, gRPC, Docker, Google Cloud (GAE, Datastore, Compute), AWS EC2, Terraform, Ansible
- **Frontend / Web:** HTML, CSS, JS, REST APIs, Blazor
- **Graphics:**

Motivated engineer specializing in web and mobile development, with strong experience building cloud-native applications, scalable backend services, and AI-augmented tools. Skilled in designing intuitive full-stack systems, integrating machine learning workflows, and developing automation pipelines for modern e-commerce platforms. Passionate about creating efficient user experiences, leveraging AI to enhance developer productivity, and building reliable applications that scale.

WORK EXPERIENCE

Volunteer Student Developer Egrape
Sept 2024 – Jun 2025
Contributed to a commercial-grade AI-integrated BigCommerce automation tool. Developed Blazor components, C# backend logic, and gRPC communication layers. Improved performance by refactoring theme-processing logic and debugging cross-service issues.

Lead Guide RAD Camps
Jun 2023 – Aug 2025
Led daily adventure and hiking groups of 8–12 youths. Ensured safety, crisis response, risk mitigation, and group communication. Developed leadership, coordination, and decision-making in dynamic outdoor environments.

Independent Contractor Instacart
Feb 2020 – Present
Managed complex delivery workflows, route optimization, and customer communication. Demonstrated reliability, time management, and professional independence across hundreds of completed orders.

PROJECTS

AI-Integrated E-Commerce Platform —
Built a production-grade automated theme merger and deployment pipeline for BigCommerce storefronts. Implemented a multi-language architecture (C#, Python, Node.js) coordinating code generation, theme validation, and deployment through gRPC microservices. Designed an AI error-handling service to

OpenGL, GLSL, animation pipelines

- **Databases:** MySQL, Google Cloud Datastore, MongoDB
- **Other:** Git/GitHub, debugging, optimization, CI/CD fundamentals
- **Certifications:** CPR, First Aid, PADI Open Water SCUBA

CLUBS AND ACTIVITIES

- OSU AI Club
- 2025 NSA Codebreaker Challenge
- OSU Brazilian Jiu-Jitsu Club
- Alpine & Nordic Skiing

process AI-generated code safely. Improved build reliability by integrating structured logging, deterministic build steps, and automated asset packaging.

Course Management REST API —
Developed a fully authenticated 11-endpoint cloud API supporting instructor/student workflows. Managed entity relationships, JWT-based Auth0 authentication, pagination logic, and strong error-handling. Deployed on Google App Engine with Datastore for highly scalable persistence. Ensured API correctness using automated Postman testing and schema validation.

xv6 Kernel Engineering —
Implemented kernel-level threading using clone() and join(), developed a page-access monitoring system call (pgaccess), and introduced a shared read-only memory page to optimize system-call performance. Designed and integrated copy-on-write fork behavior and expanded filesystem support to include indirect/double-indirect block addressing and symbolic links. Diagnosed and resolved trapframe issues, race conditions, and page-fault errors through QEMU log analysis and manual page-table inspection. Contributed performance and stability improvements to the E1000 network driver.

High Performance Computing Projects —
Implemented large-scale Monte Carlo simulations accelerated with CUDA, achieving major performance speedups vs CPU baselines. Designed and executed OpenCL quadratic regression kernels on multi-million-point datasets. Implemented distributed MPI Fourier analysis to detect hidden signals within large data streams. Generated performance graphs and analyzed scalability across cores and GPUs on OSU's DGX and rabbit compute nodes.

Business Review Web Application —
relational schema for users, businesses, and reviews; implemented CRUD REST endpoints; deployed using containerized services on Google Compute Engine. Focused on clean route design, durable DB interactions, and secure data validation.

Terraform + Ansible Minecraft Server Automation —
Built a complete IaC pipeline to provision a server on AWS EC2 without using the console, including security groups, system configuration, backups, and service scripts.