Saksham Powdel

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U.S. Citizen, Security Clearance Eligible

PROFILE SUMMARY

Full-stack developer with experience designing, developing, and deploying scalable web applications using React, Spring Boot, and Docker. Adept in backend architecture, API development, and DevOps workflows including CI/CD and containerization. Passionate about software craftsmanship and currently deepening expertise in Python and machine learning. Seeking software engineering roles to build performant, maintainable, and user-centric systems.

EDUCATION

George Mason University   Fairfax, VA
Bachelor of Science in Computer Science   *3.7 GPA, May 2025*

WORK EXPERIENCE

Software Engineer   June 2024 – Present
Bibi Salon & Spa   *Falls Church, VA*
- Designed and implemented process improvements through internal tooling, including scripting plans to automate employee schedule exports and reduce manual workload by 60%.
- Provided technical support and software solutions to streamline daily operations, applying systems thinking to identify future automation opportunities.

RELEVANT EXPERIENCE

BetterReads | *Spring Boot, React, TypeScript, Vite, PostgreSQL, Docker, Kubernetes*   May 2025 – Present
- Built a full-stack social platform inspired by Goodreads, focused on book discovery and user-centric reading features
- Engineered scalable backend services using Spring Boot and PostgreSQL, exposing RESTful APIs for search and reading lists
- Developed a responsive React (Vite) frontend with modular routing, shared state management, and search-driven UI components
- Containerized backend services with Docker; preparing for production deployment with Kubernetes and CI/CD pipelines

AI Image Upscaler | *PyTorch, ESRGAN, NumPy*   July 2025
- Built a Python-based tool to upscale low-resolution images by $4\times$ using the pretrained ESRGAN model and PyTorch
- Implemented tensor conversion, normalization, and postprocessing pipelines to transform PIL images into enhanced outputs
- Integrated deep learning inference on CPU, handling real-time image transformation without requiring GPU acceleration
- Created a clean command-line interface for loading inputs, running ESRGAN inference, and saving high-quality image results

UNIX Shell Implementation | *C, Assembly, Makefile, UNIX/Linux*   June 2023
- Created a custom UNIX shell to understand OS-level process control, signal handling, and inter-process communication
- Implemented job control, foreground/background execution, and piping to replicate core shell behavior
- Used Makefiles for portable builds and followed memory-safe practices in low-level C development
- Demonstrated understanding of concurrency, lifecycle management, and command parsing in a UNIX environment

TECHNICAL SKILLS

Languages: JavaScript, TypeScript, Java, Python, C, MATLAB, HTML/CSS
Frameworks & Libraries: React, Spring Boot, Django, Node.js, PyTorch, NumPy
Databases & Storage: PostgreSQL, MongoDB, Oracle Database
DevOps & Cloud: Docker, Kubernetes, Azure, CI/CD
Development Tools: Git, Linux/Unix, REST APIs, Makefiles, VS Code, TorchScript