Saksham Powdel

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Profile Summary

Full-stack Software Engineer (Java, Python, TypeScript) with experience in Spring Boot, React, Docker, and PostgreSQL, and a strong foundation in algorithms, cloud deployment, and Agile collaboration.

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, PostgreSQL, Docker

May 2025 – Present

- Designed and built a full-stack platform inspired by Goodreads, implementing RESTful APIs in Spring Boot with DTOs and pagination for scalable data retrieval.
- Integrated PostgreSQL for persistence (with plans for Amazon RDS migration) and containerized services using Docker for portable deployment.
- Developed a responsive React frontend with TypeScript and TailwindCSS, featuring modular routing, shared state management, and search-driven UI components.
- Sole developer responsible for backend, frontend, and infrastructure design; versioned and tracked code with GitHub.

CampusMarket | React, Django REST, Azure, Docker, Pytest

Sep 2024 – Dec 2024

- Collaborated in a 7-member Agile team (Scrum with standups, sprint planning, retrospectives) to deliver a marketplace web app for item and service listings.
- Developed backend REST APIs with Django REST Framework and implemented input validation to support secure user interactions.
- Built and connected frontend and backend services, containerized them with Docker, and contributed to deployment setup in Azure DevOps pipelines.
- Authored unit and system tests (Pytest, Jest) achieving ~100% coverage, with CI integration to ensure reliability across features.
- Reviewed and merged teammate pull requests as a top contributor, reinforcing code quality and collaborative GitHub workflows.

AI Image Upscaler | PyTorch, ESRGAN, NumPy

July 2025

- Implemented an image enhancement tool using the pretrained ESRGAN model in PyTorch, upscaling low-resolution images by $4\times$.
- Built preprocessing and postprocessing pipelines with NumPy and PIL to handle tensor conversion, normalization, and saving outputs.
- Packaged inference into a terminal interface for loading inputs, running deep learning inference on CPU, and saving enhanced results.
- Explored applied AI techniques to strengthen ML exposure and hands-on familiarity with PyTorch model deployment.

TECHNICAL SKILLS

Languages: Java, Python, TypeScript/JavaScript, C, MATLAB

Frameworks/Libraries: Spring Boot, React, Django, Node.js, PyTorch, NumPy

Databases: PostgreSQL, MongoDB, Oracle Cloud/DevOps: Docker, Azure, AWS, CI/CD

Tools: Git, Linux/Unix, REST APIs, Makefiles, VS Code