Rohan Yogesh Deshpande

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Education

RUTGERS UNIVERSITY New Brunswick, NJ
Bachelor of Science, Major in Computer Science, Minor in Mathematics Expected: May 2024
GPA: 3.7 / 4.0
Awards: Dean's List, and Alan Marc Schreiber Memorial Scholarship.
Relevant Coursework: Operating System Design (Graduate Level), Computer Security, Design and Analysis of Algorithms, Systems Programming, Software Methodologies, Data Structures and Algorithms, Linear Algebra, Scientific and Technical Writing.

Skills

Languages: Python, C, Java, HTML/CSS, Typescript/Javascript, Clojure
Spoken Languages: English (Native), Hindi (Native), Marathi (Native), Japanese (Proficient)
Technologies: Git, Docker, Kubernetes, REST API, gRPC, Operating System Design, Redis, Node.js, React.js, Django, Flask, Protocol Buffers, Azure Cloud, AWS Technologies, Microservices
Work Authorization: India, Japan, United States of America

Experience (3 Years of Total Experience)

KPMG IGNITION TOKYO (KPMG JAPAN) Tokyo, Japan
Software Engineer May 2022 - August 2023

- Led development of an in-house **file comparison software (Python, Django)**, reducing false positives by **48%** and accelerating processing by **60%** compared to Adobe PDF comparison methods.
- Developed an in-house patented **PDF table merging algorithm**, optimizing data extraction and analysis from PDFs.
- Pioneered and implemented a proactive Software Composition Analysis initiative, establishing a security pipeline that addresses **CVEs** in **Docker** containers and utilizes static analysis tools for **Python** and **Javascript** codebases.
- Developed a **property-based testing framework** in **Clojure** for assessing **REST APIs** across varying firewall conditions.
- Designed and implemented a **caching** microservice, reducing processing time by **30-50%** for a major company application.
- Led and organized a series of company-wide knowledge-sharing sessions, which collected more than **⅔ of employees** and contributed largely to context sharing and transparency across each division.
- **Technologies:** Django, Python, Clojure, Automated Testing, Kubernetes, Docker, Microservices

RUTGERS UNIVERSITY, DEPARTMENT OF GENETICS New Jersey, USA
Research Assistant May 2021 - May 2022

- Led the development of a software platform using **Python**, **OpenCV, and Arduino** enabling researchers to conduct **Optogenetics** experiments while seamlessly recording **real-time** video and experiment data.
- **Technologies:** Python, OpenCV, Arduino, Statistical Data Analysis

WHIZ.AI New Jersey, USA
Software Engineer Intern November 2021 - January 2022

- Developed efficient back-end functionality to support **language models** using **Python**, **and Flask** resulting in a 30% decrease in API latency.
- Increased the efficiency of engineers by integrating and documenting **Alembic** for easier database schema migrations.
- **Technologies:** Python, Databases, Flask, REST APIs, Language Models, Microservices

HEALCO INC. New Jersey, USA
Fullstack Engineer Intern May 2020 - February 2021

- Architected, developed, and deployed HealCo's press release web app with robust identity access management, press sharing functionality, and administrative features.
- Built a production-grade, scalable, and cost-effective **AWS**-based DevOps system and CI/CD pipeline for all HealCo apps.
- Integrated **Stripe** into the web application to enable payments by ACH debits and credit cards.
- **Technologies:** AWS, Node.js, Next.js, React.js, Typescript, Javascript, MySQL, PostgreSQL, Docker, Microservices

Featured Projects

GOOD EATS - Full-Stack Nutrition App:

- Developed a web application using **React** and **Node.js** for users to obtain nutritional information from images of food.

OS COMPONENTS - Threading Library, Virtual Memory, File System:

- Developed custom **C** libraries to recreate **POSIX** threads in user space, virtual memory, and **FUSE** based file system.

MULTITHREADED WORD WRAP - Concurrent File Processing Tool:

- Developed a (CLI) in **C** that uses **producer-consumer** threading to concurrently format (word wrap) text files.