# Rohan Yogesh Deshpande

+19174984648 • Princeton, New Jersey • rohandeshpande832@gmail.com • https://rohan2002.github.io/

## Education

**RUTGERS UNIVERSITY** New Brunswick, NJ
Bachelor of Science, Major in Computer Science, Minor in Mathematics 2020 - 2024
**GPA:** 3.69 / 4.0 (Graduated *cum laude* with Computer Science Honors)
**Awards:** Dean's List, Alan Marc Schreiber Memorial Scholarship for **Excellence** in **Mathematics**
**Relevant Coursework:** Operating System Design, Computer Security, Design and Analysis of Algorithms, Systems Programming, Software Methodologies, Data Structures, Linear Algebra, Scientific and Technical Writing.

## Skills

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

## Experience

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

- Led development of end-to-end **file comparison** software increasing accuracy by **48%** and reducing processing time by **60%**.
- Developed front-end **(React.js),** and back-end **(Django, PostgreSQL)** features of a major financial auditing platform.
- Enhanced financial auditing accuracy by developing patented algorithms in **Python** that improved data extraction from PDFs.
- Improved system elasticity with event-driven autoscaling using **KEDA**, dynamically adjusting resources based on live metrics.
- Reduced financial auditing application API latency by **30-50%** through application-level caching implementation.
- Automated security checks **(CodeQL, Qualys)** that streamlined security bug resolution and deployment.
- Extensively managed production deployments with **Azure** Log Analytics, Kubernetes Services, and Firewall configurations.
- Created a property-based testing framework in **Clojure** for testing **REST APIs**, driving initial adoption across the company.

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

- Created **Python**-based software with **OpenCV** and **Arduino** integration to automate real-time Optogenetics experiments for studying postpartum depression.
- Developed **Python** software with **FFMPEG** and **OpenCV** to annotate video frames for computer vision model training.

**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 migrations.

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

- Built HealCo's press release web app with identity access management, press sharing, and administrative features using **Next.js, TypeScript, PostgreSQL, Twilio, SendGrid, and Stripe.**
- Built a scalable, and cost-effective **AWS Fargate-based DevOps** system and **CI/CD** pipeline for all HealCo apps.
- Rapidly deployed web app for hospitals to lease medical spaces during **COVID-19** pandemic.
- Integrated **Stripe** into the web application **(React, Koa.js)** to enable payments by ACH debits and credit cards.

## Featured Projects

**PYPODS - Python Dependency Isolation Framework**

- A lightweight solution to execute **Python** dependencies in an isolated fashion enhancing modularity of codebases.

**CONCURRENT WORD WRAPPER - Word Wrapping Library:**

- Developed a **C** library to format (word wrap) files in multiple directories and subdirectories concurrently.

**IFEVAL - Large Language Model (LLM) Response Evaluation Framework:**

- Developed a **Clojure** library to evaluate responses from LLM, based on the work of **Google** and **Yale University.**

**OS - Operating System Components:**

- Developed **C** libraries for **POSIX** thread emulation, virtual memory management, and **FUSE**-based file systems.