# Rohit Shete

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#### EDUCATION

## University of Maryland

College Park, MD

BS in Computer Engineering - 3.7/4.0

December 2025

Relevant Coursework: Object Oriented Programming, Algorithms & Data structures, Signal Processing, Embedded Systems, Proof Based Math(Linear Algebra, Multivariable Calculus, Differentiable Equations), Computer Systems, Discrete Structures, Computer Organization, Digital Logic Design, Circuits

#### EXPERIENCE

## Hardware Design Researcher

Dec 2024 – Present

University of Maryland

College Park, MD

• Using ML and algorithmic techniques for hardware design and optimization

#### Software Engineering Intern

May 2024 – Aug 2024

John Hancock

Boston, MA

- Designed a streamlined **Docker container image** for NGINX, and enhanced the existing Node image for future scalability
- Optimized companies base container image library by reducing the number of needed files by over 50%
- Utilized **GitHub actions** to automate the deployment of over 10 images, **freeing 20 hours/month** of engineer's time, and ensuring the latest versions are deployed through **CI/CD**
- Updated **Kubernetes** pods to resolve 5 security compliance complaints identified in Prisma

#### Genome Computing Researcher

Jan 2023 – Dec 2023

University of Maryland

College Park, MD

- Used Python to extract data from over 100 files and create plots with pandas and seaborn
- Presented findings at a summit, showing that DNA lac loops prefer lower energy levels

### **Data Analytics Intern**

June 2020 – Aug. 2021

Boston Children's Hospital

Remote

- Analyzed gene mutation data to assess effects on nearby genes.
- Investigated heart condition correlations and mapped patient locations by zip code using data analysis in excel
- Used VBA macros to make daily blood pressure report, freeing over 30 hours/month manual work

#### Projects

## DNA Sequence Influence on Lac Loop Structures

Dec 2023

- Created Jupyter Notebook and Python scripts to examine how properties of TAL sequence change with shifts
- Used Matplotlib, pandas, NumPy, seaborns, os, and regex to get relevant information from files and create plots
- Leveraged functions and lambda expressions to write clean, maintainable code.
- Collaborated effectively with the research team, coordinating tasks and ensuring timely completion

#### Graph implementation in C

May 2023

- Programmed a graph implementation in C, supporting operations such as adding and removing vertices, creating and deleting edges, and freeing memory.
- Utilized dynamic memory allocation and pointer arithmetic to efficiently manage nodes and their values.
- Uses free to prevent memory leaks and uses string functions to analyze the values

#### JaneStreet-DieAgony

Jan 2023

- Built a Java application to simulate a die navigating through a grid using recursion and backtracking algorithms.
- Implemented pathfinding logic to explore all possible routes and validate correct and incorrect pathways.
- Ensured results were valid through testing

#### TECHNICAL SKILLS

Languages: Java, Python, C, OCaml, Rust, HTML/CSS, Unix

**Technical**: Docker, Kubernetes MATLAB, LaTeX, Git **Libraries**: pandas, NumPy, Matplotlib, scikit-learn, regex