

# SHAMITH PASULA

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## EDUCATION

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### University of California, Berkeley

Expected **May 2025**

Bachelor of Arts in Computer Science & Astrophysics

GPA: **3.86/4.00**

Relevant Coursework: Operating Systems, Algorithms, Databases, Internet Architecture, Computer Architecture, Security

## WORK EXPERIENCE

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### PALANTIR

New York, NY

Software Engineer Intern

May 2024 - August 2024

- Engineered priority task scheduler in **Java** to improve Cassandra data compaction concurrency from 16 to 100 threads.
- Integrated continuous JFR diagnostics into Cassandra through HTTP server, enabling faster debugging of large clusters.
- Developed solution to validate resource quotas for **Kubernetes** and Openshift deployments, decreasing cost by 10%.

### ZIPRECRUITER

Santa Monica, CA

Software Engineer Intern

May 2023 - August 2023

- Implemented **Express.js** system for serving banners across 500+ **React.js** and **Next.js** frontends through gRPC and HTTP.
- Strengthened SEO and UX by reducing page load times by 40% with server-side rendering and static site generation.
- Streamlined the process of adding new banners to a 1 file change, enhancing productivity within the development team.

### ATLASSIAN

Berkeley, CA

Software Developer Consultant

August 2022 - December 2022

- Constructed **machine learning** model hosted on **AWS EC2** to group 1000s of issues by similarity to save time for end users.
- Deployed frontend using **React.js**-like library and implemented **OAuth** flow between UI and NLP model.
- Headed team of 5 developers to reduce time-to-resolution for issues by 25%, leveraging agile methodologies and **CI/CD**.

### ENVESTNET

San Mateo, CA

Software Engineer Intern

June 2022 - September 2022

- Designed embedded finance solution to improve underprivileged communities' financial health through microlearning.
- Customized 30+ UI pages for Envestnet portal with **React.js**, utilizing **Redux** and **Redux Saga** for state management.
- Assembled full suite of end-to-end testing and integrated them into **CI/CD** to improve development for ~1000 employees.

### ASSISTIVE TECHNOLOGY DEVELOPMENT, INC.

Berkeley, CA

Software Engineer Intern

January 2022 - May 2022

- Fabricated cost-effective pneumatic device to treat lockjaw, collaborating with 6 engineers at a SkyDeck-backed company.
- Developed **Python** GUI and **C++** software for **Arduino** microcontroller to ensure a smooth, user-friendly experience.

## PROJECTS

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### PINTOS

January 2023 - May 2023

- Constructed operating system utilizing **C** and **x86** with features such as multithreading, file system, virtual memory, etc.
- Implemented concurrency primitives, memory allocation & paging, floating-point operations, etc. from scratch.

### 8 BALL POOL

December 2022 - January 2023

- Developed an intuitive and visually appealing graphical user interface for an 8-ball pool game using Java Swing.
- Implemented physics for velocity, 2D perfectly elastic collisions, and friction from scratch.

## ORGANIZATIONS

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**PLEXTECH** - Instructor → Project Manager → Treasurer → President

January 2022 - Present

- Pioneered **full-stack web app** to process \$70k+ of expenses, reducing 6 month process to 1 week utilizing **Flask & React.js**.
- Driving web dev education and technology consulting NPO with \$100k annual revenue and 50+ members.

**CS 61A** - Tutor → TA

January 2022 - Present

- Developed **Flask & React.js** full-stack web app to allocate staff to improve office hour wait times and efficiency.
- Mentored 200+ beginner students in **Python**, recursion, OOP, etc., enabling them to write a Scheme interpreter.

## SKILLS

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**Languages:** Python, C/C++, Java, JavaScript, Rust, Go, HTML/CSS, SQL, Ruby, Scala, SwiftUI, Kotlin, x86, RISC-V, Verilog

**Technologies:** Kubernetes, React.js, Next.js, Redux, MongoDB, Flask, jQuery, Selenium, TensorFlow, NumPy/Pandas