

# VAISHAK KRISHNA

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## Education

University of California, Berkeley (GPA: 3.9/4.0)

Aug. 2020 – Present

In progress: Bachelor of Arts in Computer Science

Berkeley, California

Honors: Dean's list, Upsilon Pi Epsilon CS Honor Society.

## Relevant Coursework

- Data Structures
- Discrete Mathematics and Probability
- Structure and Interpretation of Computer Programs
- Algorithms and Intractable Problems
- Computer Architecture
- Designing Information Devices and Systems
- Operating Systems
- Foundations of Data Science
- Computer Security
- In Progress: Intro Machine Learning
- In Progress: Principles/Techniques of Data Science

## Experience

### QBurst

June 2021 – August 2021

Backend Software Engineer Intern

Remote

- **Worked on a microservice** using the .NET framework and MERN stack to store lead data from various sources.
- **Co-Developed a REST API endpoint** for an internal tool to securely access customer lead data in a SQL database.
- **Worked with various dev teams** to integrate the API into an application and increase ad deployment efficiency.

## Extracurricular

### Computer Science Mentors (UC Berkeley)

January - May 2022/2023

Mentor

Berkeley, California

- Currently **teaching Computer Architecture** concepts as a mentor to a group of students weekly.
- **Taught data structures concepts and mentored** many peers weekly, receiving a **4.5/5.0 effectiveness rating**.
- Co-led task forces to **teach** concepts of Git/Github and produce review videos for students.

## Projects

**Gym Data Visualization** | <https://rsf-crowd-data.web.app/> | *AWS, IPYNB, Firebase* **October 2022 - December 2022**

- Developed a **data visualization** web app to display the **crowd density** of the **UC Berkeley** campus gym.
- Received **97%** positive feedback from **over 200** UC Berkeley students and City of Berkeley residents.
- Coded a **data pipeline** to collect, transform, and store data from the school gym in a **cloud database**.

**Wordle Improved** | <https://wordle-improve.web.app/> | *JavaScript, React, HTML/CSS, AWS* **May 2022 - September 2022**

- Launched a **responsive, improved** version of the hit game “Wordle” using ReactJS, hosted on an AWS EC2 instance.
- Construced an information theory based solver that is **97% as good** as the current best solver (3.54 avg guesses).
- Ensured compatibility with **multiple operating systems and browsers** using various Web APIs.
- Deployed the web app for **400+** users by configuring **Apache HTTP server** on Linux machines in the **cloud**.

**EVA Poker AI** | *C++, Java, Python*

July 2022 - September 2022

- Developed an **efficient and intuitive** command-line Texas Hold-em poker simulator in Python for 2-8 players.
- Optimized a **regret-minimizing AI solver** for Kuhn Poker in C++ (vs. Python) for a **30x speed up** in runtime.
- Designed a **novel version of Poker** to aid the development and debugging of the Texas hold-em solver.

**School Projects** | *Python, Java, C, Go*

January 2020 - May 2022

- Developed an **end-to-end encrypted** file storage and retrieval system with filesharing support in Go.
- Implemented **voice recognition** for a robot car using **SVD/PCA and Machine Learning** to classify sound waves.
- Programmed a two-player PVP game with random world generation in Java using **object-oriented principles**.

## Technical Skills

**Computer Languages:** Python, JavaScript, Java/JUnit, RISC-V Assembly, C/C++, HTML, CSS, Go, C#

**Developer Tools:** VS Code, IntelliJ, PyCharm, Eclipse, Visual Studio

**Technologies/Frameworks:** ReactJS, Git/GitHub, Microsoft Azure, Linode, Jupyter Notebook, Linux, .NET, Django

## Other Skills/Hobbies

- Languages: English (Bilingual Proficiency), Malayalam (Bilingual Proficiency), Mandarin Chinese (Limited WP)
- Trombone Performance - Accepted/performed in various ensembles at the school, state, and all-national levels.
- Hobbies - Bouldering, Poker Theory, Gaming, Weight Lifting, Speedcubing, Cooking