

# Krishna Kumar Pandian

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## Education

### Bachelor of Science: Computer Engineering

September 2018 - June 2022

University of California, Santa Cruz

- Cumulative GPA: 3.85
  - Coursework: Advanced Computer Networks, Principles of Computer Systems, Intro to Algorithms, Intro to Databases, Logic Design, Computer Systems and C Programming, Network Programming, Software Engineering
  - In Progress: Distributed Systems, Embedded System Design
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## Experience

### Software Engineering Intern @ JPMorgan Chase & Co.

June 2021 - August 2021

- Team: Consumer Lending Technology API Development
- Working on Infrastructure, Automation and Testing
- Stack: Java, Selenium

### Software Developer @ VAMA

June 2020 - April 2021

- Implemented software to interact with ESSENT, an RTL simulator that outputs simulation data of CPU
- Designed interfaces in C++ for 2 different open-source tools riscv-mini and DinoCPU
- Automated unit testing with shell scripting to produce a 5x speedup using bash and C

### Web Developer @ Tech4Good

March 2020 - March 2021

- Produced client focused web containers and interfaces
- Collaborated with user experience team to ensure a simple user interface
- Developed UI and containers utilizing AngularJS, node.js, Typescript, HTML, SCSS

### CSE Tutor and Grader @ Baskin School of Engineering

September 2019 - March 2021

- Debugged students MIPS code and Logic Design, and made optimal solutions for lower division Computer Systems and Assembly Language course
  - Developed solutions and graded homework and exams for upper division Computer Architecture course
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## Activities

### Software Engineering Lead @ CruzHacks

April 2019 - Present

- Hosted UCSC's annual hackathon, bringing 600+ students across the nation for one of CA's largest 36 hour hackathon
- Developing secure web application to manage 600+ users with React, Typescript, Node, and cloud functions
- Developed integration standards and linters with Firebase, Github Actions, and node.js
- Formerly Logistics Operations Manager

### VP of Engineering @ Society of Asian Scientists and Engineers

April 2019 - April 2021

- Organization focused around challenging Asian stereotypes and provided opportunities to learn industry skills
  - Hosted technical and non-technical workshops and organized speaker events for chapter about Git, AWS, Python, and professional development
  - Formerly treasurer, managed chapter funding and raised over \$5000 through grants and fundraising
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## Projects

### Distributed UDP File Downloader

February 2021

- Built a secure distributed file downloader that fetches chunks of data from a distributed system
- Services up to 100+ clients concurrently and download at a rate of  $(1-1/n)\%$  with  $n$  being the number of servers hosted faster than using wget
- Developed client and server network protocol with C, socket programming, multithreading, and UDP

### Department of Energy Design Challenge

January 2021

- Awarded 2nd place nationally for developing web application to provide more information about geothermal energy
- Designed web application using Javascript, HTML, CSS to provide a clear info graphic of geothermal information
- Deployed an automated Twitter Bot to continue engagement with our main site utilizing the Twitter API, Node.js, Heroku

### SloHacks Hackathon

February 2019

- Awarded Best IOT Hardware Hack and Best Use of a Qualcomm Device at SLOHacks over 500+ students
  - Automated a microwave and gave it Alexa functionality using Python, a dragonboard, and an arduino
  - Utilized Python to host RESTful service to interface with arduino and Alexa
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## Technical Skills

**Languages:** Python, C, C++, Typescript, JavaScript, Go, Java, Bash

**Technologies:** Git, Docker, Unix, Linux, Firebase, AWS, Heroku, MongoDB, SQL

**Frameworks:** Express.js, React, Mux, Flask, Angular