

# Koorous Vargha

## Software Engineer

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A recent graduate of Computer Science with honors and hands-on experience in the full-stack of software development and resolving the execution time issues and debugging.

### KEY SKILLS

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**Languages:** Python, C, JavaScript, Java, Golang, PostgreSQL, NoSQL, HTML, CSS

**Cloud Services:** Amazon Web Services (AWS), Google Cloud Platform, DigitalOcean, Cloudflare

**Libraries/Tools:** Docker, Django/Flask, React, Material-UI, Polymer, Tensorflow, Express, Node.js, OpenAPI, LaTeX

**Soft Skills:** Project Management, Effective Communication, Public Speaking, Critical Thinking

### EDUCATION

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**University of California, Santa Cruz**

Graduated: March 2021

Bachelor of Science in Computer Science with Honors

GPA: 3.50

**Relevant Coursework:** Distributed Systems, Operating Systems, Web Applications, Database Systems, Computing Networking, Machine Learning, Data Structures, Algorithms, Computer Architecture, Functional Programming, Calculus, Linear Algebra, Probability Theory, Computational Models, Technical Writing

### INTERNSHIP

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**Lab Manager / Programmer Intern - UCSC LEEPS Lab, Santa Cruz**

May 2020 - Present

- Modernized legacy applications by implementing asynchronous processes through parallelism
- Migrated economic experiments to the cloud utilizing DigitalOcean Linux servers
- Visualized stock market simulation data using Matplotlib and Numpy
- Built multiplayer full-stack high-frequency trading economic experiments using Django and Polymer
- Developed robust RESTful API's and implemented performance testing suites
- Frequently communicated with Lab Directors to discuss project deadlines and features

### PROJECTS

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**AmberDash: 1st Place Google Cloud Category - CruzHacks 2020**

- An Android app that matched nearby cars with Google Vision with active amber alerts on Firebase
- Created dashboard with Flask to pull data from Firebase to display recent coordinates onto Google Maps

**GPU Stock Checker - Personal Project**

- Developed with Python requests, deployed on AWS EC2, and delivers push notifications with AWS SNS

**Gmail Clone - Class Project**

- Built responsive full-stack application using React and Material-UI in a Docker environment
- Wrote automated unit tests with Puppeteer and Jest; used JSON Web Tokens for user authentication
- Created robust RESTful API's with Node.js and Express to communicate with a PostgreSQL database

**Distributed Database - Class Project**

- A distributed key-value datastore using Golang hosted within a network of Docker containers
- Improved fault-tolerance through data sharding/node replication, and wrote load balancing algorithms

**Image Recognition - Class Project**

- Built convolutional neural networks from scratch using Tensorflow to classify pre-processed images
- Utilized pre-trained neural network models and dropout techniques to increase model accuracy
- Visualized model loss and accuracy using Matplotlib and Numpy

**Django Blog - Personal Project**

- A full-stack blog using Django that handled multi-user authentication and custom blog posts
- Deployed to AWS using Elastic Beanstalk and S3 that can scale to over 100,000 users