Ishaan Dham

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EDUCATION

University Of California - Berkeley   GPA: 3.82
BA Computer Science   June 2021 - May 2023
- **Distinctions**: Jim and Donna Gray Award (2022): Awarded to <1% of CS majors based on high scholastic achievement.
- **Relevant Coursework**: CS162: Operating Systems; CS170: Algorithms; CS186: Database Systems; CS61C: Computer Architecture; CS61B: Data Structures; CS70: Discrete Math & Probability; CS61A: Structure and Interpretation of Computer Programs; CS20: Data Structures and Algorithms in C++; EE16A-B: Electronic Systems;

Las Positas College - Livermore   GPA: 4.00
AS Computer Science & Mathematics - Highest Honors   August 2019 - May 2021
- **Distinctions**: Ethan Castor Memorial Scholarship (2021); Math, Computer Science Scholarship (2021)
- **Relevant Coursework**: CS20: Data Structures and Algorithms in C++; CS2: Object Oriented Programming in C++

WORK EXPERIENCE

Kohl's Corporation
Software Engineer Intern   June 2022 - August 2022
- Delivered memory leak solution to Python microservice by decreasing it's failure rate and enabling it to process large submissions (>400,000 SKUs) using memory profiling and sub-processes.
- Achieved increased pricing accuracy by decreasing stuck pricing to <2% of departments by adding logic that enables sequential processing of PubSub messages.
- Deployed three microservices to OpenShift to create functional development and production pipelines using container tools such as Docker and Kubernetes.

Open Computing Facility   Berkeley, CA
Head Decal Facilitator   https://decal.ocf.io
- Head Facilitator for student run course with 100 students on Linux System Administration and Tools (CS 198-008).
- Created lab materials on topics such as docker, processes, networking etc. and managed course website.
- Collaborated with other staff members to assist students by managing student forum, in-person labs, and course infrastructure.

Las Positas College Tutorial Center   Livermore, CA
Computer Science and Math Tutor   August 2020 - May 2021
- Created reference materials for students on programming concepts like data structures, pointers, classes, etc.
- Tutored one-on-one and group sessions in mathematical concepts like multivariable calculus, linear algebra, and more.
- Collaborated with other tutors to create a positive learning environment leading to a 93% satisfaction rate amongst tutees.

PROJECTS

ShortLinks
Golang, Kubernetes, React, Postgres, Docker, Digital Ocean   shorturl.ishaandham.com/app
- Created functionality to shorten urls using custom aliases by developing a REST Api and frontend, and database to store user information.
- Enabled greater app scalability, availability, and reliability by containerizing and deploying app components on a Kubernetes cluster.

MyDatabase
Java, SQL, JUnit
- Implemented support for B+ tree indices, efficient join algorithms, query optimization, multi-granularity locking to allow concurrent execution of transactions, and database recovery.
- Achieved large test coverage by creating unit tests, and integration tests using JUnit framework.

Git(lite) Version control software
Java, Python
- Developed version control software with Git like functionality i.e init, add, commit, merge, checkout and more commands.
- Performed test-driven development through unit testing, regression testing, and integration testing using JUnit framework and Python scripting.

Blog App
Node.js, Javascript, Docker
- Developed a blog application with markdown to html, and filter functionality.
- Containerized application to enable easy self-hosting.

SKILLS

Languages:	Python, Java, Go, C, C++, Javascript, HTML/CSS, SQL, Bash, RISC-V
Technologies:	Kubernetes, Docker, Node.js, Express.js, React, Flask, GCP, Digital Ocean