RIYA SHEIK

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EDUCATION

University of California, Berkeley
Expected 2024

B.A. Computer Science

Relevant Coursework: Data Structures and Algorithms, Machine Structures, Structure and Interpretation of Computer Programs, Discrete Mathematics and Probability Theory, Linear Algebra and Differential Equations

EXPERIENCE

Amazon Web Services
May 2022 - Aug 2022

Software Development Engineering Intern

- Built new feature using Golang in AWS Elastic Container Service (ECS) to start, run, and stop containers on external hosts if network connection is lost, eliminating undefined behavior and reducing overhead by pausing operations
- Designed project after analyzing 500+ log messages to determine necessary features and user needs
- Used AWS Console, Docker, and Linux OS to launch container tasks on Ubuntu and EC2 instances, wrote 10+ integration and functional tests, and presented a manual test demonstration to managers
- Projected to increase customer base by 10%, causing feature to be adopted into ECS production roadmap

Theta Tau Professional Engineering Fraternity
Nov 2021 - May 2022

Webmaster / Technology Chair

- Designed and maintained website in Ruby, adding photo carousel and page-wise navigation bar
- Debugged and published a feature allowing current members to vote on applications during specified times
- Initialized database using PostgreSQL for all member and general information, updating database correspondingly with UI additions

PROJECTS

Snake
Feb 2022

- Used C to develop a playable version of the game, Snake, with corresponding GUI that responds to keyboard inputs
- Created 2 different structs in C to store the game state and the snake, and modifying functions for memory allocation

Gitlet
Nov 2021 - Dec 2021

- Developed and wrote a design document for a version control system that mimics the features of Git
- Implemented Git add, rm, commit, branch, checkout, and merge commands using serialization, persistence, and data structures such as Java's LinkedHashMaps, Collections, and HashSets

Jump 61
Oct 2021

- Used Java to code a functional replica of the 2-player KJumpingCube game that follows manual textual input commands
- Developed an AI player that utilized a predictive game tree data structure using the minimax algorithm with alpha-beta pruning to decide the best possible move based on a heuristic value

Smart Garden
Feb 2021 - April 2021

- Worked with team of ~10 to create a mobile application which controlled a customizable physical watering system for plants
- Utilized Firebase to create a database of watering times for different types of plants based on holistic research
- Completed user testing to ensure the application dispensed water at the database-specified time

SKILLS

Technical Languages: Python, Java, C/C++, Golang, Javascript, HTML/CSS, SQL

Tools: Git Version Control, AWS, Docker, PostgreSQL, Figma, React, Ruby