Furkan Ercevik

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EDUCATION

University of California - Santa Cruz   Santa Cruz, CA
Bachelor of Science in Computer Science   *Sept 2021 – Present*

Current GPA: 4.0/4.0

RELEVANT COURSEWORK

Data Structures and Algorithms, Introduction to Computer Architecture, Computer Systems and C Programming, Introduction to Probability Theory, Discrete Mathematics, Vector Calculus, and Abstractions in Python

PROJECTS

STLKER | *Golang, REST, Redis, OpenAPI, gRPC, Git, Docker, AWS*   March 2022 – October 2022
- Developed a back-end application to track securities and user-defined portfolios via 3rd party API's from the command line
- Implemented a unary and streaming gRPC microservice using protocol buffers and Golang to call 3rd party API's and forward them to the client's CLI in the appropriate currency and format
- Created a RESTful microservice using Golang to call my gRPC service, and perform CRUD operations on user-specified portfolios
- Utilized the GORM framework to efficiently execute SQL queries on a PostgreSQL database
- Added JWT authentication for users to signup and login with
- Developed Redis caching for multiple endpoints
- Utilized the crypto package to encrypt/decrypt user's passwords prior to saving them to a PostgreSQL database
- Generated OpenAPI/Swagger documentation for the REST API with sample requests and responses
- Dockerized the application and deployed it to AWS ECS using Docker Compose and CloudFormation

Wave | *Golang, REST, Git, Docker*   Feb 2022 – March 2022
- Developed a command line application using the Cobra CLI framework to test RESTful APIs
- Implemented concurrent request querying to load test APIs via goroutines
- Created a YAML requests file convention to check actual responses with expected responses and iterate over multiple id ranges
- Added a logging feature to save the application's output to a log file
- Utilized the crypto package to encrypt the credentials yaml file with a passphrase in a key file or an arg to the app
- Created a Dockerfile to containerize the application

VPath | *Python, Pygame, Git*   Jan 2022 – Feb 2022
- Developed a GUI application to create and solve simple mazes as well as user-made mazes using Pygame
- Implemented saving and loading mazes to a user's local file system
- Created multiple algorithmic visualizations for Dijkstra's, A-star, and BFS search

Sudoku-Solver | *Python, Pygame, Git*   October 2021 – Jan 2022
- Developed a GUI application to play and solve randomly generated sudoku puzzles using Pygame
- Implemented a visualization for backtracking/depth-first search
- Added a timing feature to measure how long a user took to solve a given puzzle
- Created note taking, hinting, and mistake features to allow for better play-ability

TECHNICAL SKILLS

Languages: Golang, Python, C/C++, JAVA, SQL (MYSQL, Postgres, SQLite), Java/TypeScript, HTML/CSS
Frameworks and Developer Tools: Gorilla Mux, Cobra, Linux, OpenAPI, Vue.js, ReactJS, Flask, Pygame, Pycord
Libraries: gRPC, NumPy, Pygame, Pandas, Matplotlib