ILIA FATEMI

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Skills

Languages: Python, C/C++, SQL, HTML/CSS, NodeJS, Angular, TypeScript/JavaScript, Express JS, Kotlin, Java
Technologies & Tools: GCP, Microsoft Azure, IIS, Apache Server, Docker, Scikit-Learn, Linux, Git, CMake, NumPy, Pandas

Projects

Movie Analysis   Apr - Aug 2024
Data Analysis | Python, NumPy, Pandas
- Analyzed 100K+ movies using IMDb and TMDb data to identify profitability trends by genre and runtime.
- Cleaned and merged data from multiple IMDb files and fetched additional fields from TMDb API.
- Built a Random Forest model with scikit-learn to predict movie revenue, achieving 74% accuracy on test data.
- Conducted statistical analysis, finding that runtime and genre significantly impact profitability.
- Addressed challenges in data grouping and feature importance to enhance model performance.

So Bad It's Good   Jan - Apr 2023
Web Application| Node.js, Angular, GCP, PostgreSQL
- Built a movie review app using Angular/Node.js and deployed it via Apache on GCP VM.
- Integrated TMDb API and stored movie data in PostgreSQL on GCP.
- Built RESTful APIs to handle user CRUD operations.
- Used PostgreSQL on GCP to manage persistent movie/user data.
- Configured Apache reverse proxy on GCP to serve Angular and Node.js frontend/backend.

IPC Application   Sep - Dec 2023
Terminal Chat App | C, UDP Sockets, Linux
- Developed a real-time, terminal-based peer-to-peer chat application for LAN using UDP sockets in C.
- Used multithreading for concurrent input, display, and messaging.
- Applied synchronization using mutexes and condition variables to ensure thread-safe communication.
- Enabled direct machine-to-machine messaging using hostnames and port numbers on the same subnet.

Prison Escape   Jan - Apr 2022
2D Maze Game | Java, Maven, JUnit
- Led Scrum-based project planning with teammates to manage workflow and deliverables.
- Designed the game's software architecture using UML diagrams to define modular components.
- Managed builds, documentation, and dependencies using Apache Maven throughout development.
- Applied object-oriented programming principles in Java to create a scalable, reusable game engine and user interface.
- Built different unit and integration tests to detect logic and runtime errors.

Education

Simon Fraser University   Jan 2021 - Current
Bachelor of Science – Major in Computing Science