Charlie Martinez Dominguez

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Education

California State University, Los Angeles, BS in Computer Science — August 2019 – May 2024

- *Coursework:* Large-Scale Data Analysis & Visualization, Concurrent & Distributed Programming, Modeling and Simulation, Advance Machine & Deep Learning, Web Design, Robotics, Data Structures & Algorithms

Experience

Ground Software Intern, Maxar Technologies – Remote, CA — June 2023 – Sep 2023

- Created a dashboard for a Python Flask app to automate internal data reports.
- Used the Pandas library alongside HTML / CSS to filter and aggregate data from external API's based on the user's custom criteria.
- Developed the project through an AWS EC2 Linux instance using Git and GitLab to collaborate with the team to also create new tests to integrate for the CI/CD pipeline.

Projects

Clash Stats — clashstats.dev

- Developed a full-stack application to empower Clash Royale players with actionable insights and AI-driven strategic recommendations.
- Built a responsive user interface using React.js and Tailwind CSS to visualize key performance indicators such as common losing deck archetypes and problematic opponent cards.
- Engineered a robust Java Spring Boot server to manage user interactions, API request routing, and communication with the Python backend, utilizing Redis for efficient rate limiting.
- Developed a Python FastAPI back-end service to interface with the official Clash Royale API, retrieve and process user battle logs, and perform statistical analysis on game data.
- Leveraged the Groq LLM API to generate personalized, context-aware recommendations based on computed statistics from their gameplay.
- Deployed the entire application stack on an AWS EC2 instance, configured with Nginx as a reverse proxy to communicate with the applications running in docker containers.

Alexandria — github.com/cherlesmd/Alexandria

- Created a Chrome extension that allows users to download their library of TikTok video collections to their device.
- Uses the chrome extension API's to inject a content script along with HTML and CSS to let the user choose their folder of choice.
- The content script handles interactions, intercepts network request, and asynchronously gets and writes videos to the folder.

My Try — github.com/cherlesmd/MyTry-Frontend

- Developed a full-stack app that saves a users' list they want to visit and displays the ones that are closest with a list and map visual based on the user's geospatial location and preferred radius.
- Created with a React front-end written with JavaScript, HTML, and Tailwind that integrates the Mapbox API to show a map of user's saved locations.
- Communicates with a Java Spring back-end hosted on an AWS EC2 Linux server through API's that uses a RESTful architecture along with JWT authentication for user authorization.
- MongoDB is used for the database to store user profiles and to leverage it's geospatial queries feature.