Roman Barbalat

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SKILLS

JavaScript, Python, React, Redux, Express, Flask, Sequelize, SQLAlchemy, AWS, PostgreSQL, SQLite3, Socket.IO

PROJECTS

Gulp   Live Site | GitHub

A soft yelp clone featuring businesses, reviews, favorites and replies to reviews.

- Wrote the frontend in JavaScript using React/Redux in order to create an application that is interactive, dynamic, efficiently rendered and composed of reusable components.
- Incorporated Amazon Web Services (AWS) S3 into the application for image uploads in order to improve the user experience while also improving the security and reliability of image file storage.
- Designed and Implemented a RESTful Api to connect the frontend with the backend and provide scalability, flexibility and independence.
- Designed the underlying structure of the database and deployed it with PostgreSQL in production while using SQLite3 in development.

Cypher   Live Site | GitHub

A soft slack clone that allows users to interact with one another through direct messages and public channel posts.

- Wrote the backend in Python using a combination of the Flask web framework and the SQLAlchemy object-relational mapper (ORM) in order to create route functions that are clear, maintainable and make use of SQlAlchemy's relationships feature.
- Employed Socket.IO to incorporate WebSockets into the application in order to create the direct message and channel message features.
- Pair programmed in rotating groups of two as part of a four person development team. Debugged and modified large chunks of code that I did not originally contribute to.
- Utilized WTforms to validate user submitted data and generate error responses across multiple form fields in order to display validation errors to users on form submission.

EXPERIENCE

Natural Gas Options Trader

Marquette Partners, May 2017 - Oct 2020

- Combined knowledge of recent order flow with volatility arbitrage to speculate on short term price changes in the Natural Gas Options market.
- Served as an options market maker in the over-the-counter market while click trading in the electronic market.
- Single-handedly traded and risk-managed an options portfolio containing contracts with expirations up to four months away.

Options Trader

Belvedere Trading, May 2010 - Apr 2014

- Made markets in a wide variety of options markets including Natural Gas, Oil, Gold and the S&P 500 as a member of both small and large teams.
- Traded through over-the-counter and floor brokers via phone and instant message as well as in the electronic market by click trading and operating a mass quoter and an electronic eye.
- Founded the company's night trading operation and traded all ten products traded by Belvedere at the time by myself for six months which included the volatile August of 2011 when the S&P downgraded U.S government debt.
- Taught an introductory course on Options theory to classes of new hires and also taught trading on a one on one basis to those students who fell behind in their mock trading classes.

EDUCATION

App Academy - Immersive software development course with focus on full stack web development (August 2023)

Carnegie Mellon University - *MS - Computational Finance* (December 2009)

Carnegie Mellon University - *BS - Mathematics* (Spring 2008)