OWEN MCCADDEN

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EDUCATION

University of North Carolina at Chapel Hill – Chapel Hill, NC May 2023
Bachelor of Science in Computer Science and Bachelor of Science in Economics

- GPA 3.87/4.00

Relevant Coursework

- Object-Oriented Programming, Data Structures and Algorithms, Discrete Structures, Systems Fundamentals, Linear Algebra

SKILLS

Programming Languages: Python, Java, JavaScript, C
Frameworks and Tools: AWS (S3, Lambda, DynamoDB, API Gateway, IAM), RESTful APIs, HTML/CSS, SQL, Figma, Unit Testing, Git
Certifications: AWS Cloud Practitioner Essentials, Bloomberg Market Concepts, Udemy Data Structures and Algorithms in Python

EXPERIENCE

Principal Financial Group – Des Moines, IA (Remote) May 2021 – Present
Data Engineer Intern

- Developing an ETL pipeline to migrate on-premises data to AWS using Glue, S3, Lambda, and Redshift
- Creating a CDK in Python to build and provision AWS resources and infrastructure for ETL processes
- Utilizing AWS API Gateway and Lambda to perform read and write operations on DynamoDB tables

UNC Product Management Club – Chapel Hill, NC January 2021 – Present
Team Member

- Designed a frontend app prototype for CulTrue, a software analytics company looking to help improve workplace culture
- Collaborating with a team of student developers and designers to prototype software products for startups
- Communicating with startup management to understand and implement business requirements

PERSONAL PROJECTS

Versify (Python, Javascript) Summer 2021

- Created a web application to generate new verses of any song with machine learning based on the original lyrics
- Collected data from the Genius API and used the OpenAI API and GTP-3 to process the lyrics and write new verses
- Constructed a REST API using AWS API Gateway, Lambda, and DynamoDB and hosted the web app on AWS S3

Algorithmic Trading Interface (Python) Spring 2021

- Engineered a framework to implement algorithmic trading strategies using the Robinhood API
- Provided a feature to calculate and visualize expected changes in equity option prices using the Black-Scholes Model
- Designed an algorithm using this system to optimize the Sharpe Ratio of a portfolio using a Monte-Carlo simulation

Least Squares Optimization (Python) Spring 2021

- Developed a python process to generate an n-degree polynomial of best fit for any given dataset using least squares
- Programmed methods to perform other matrix operations such as the Gram-Schmid process and vector projections

Stock Twitter Sentiment Analysis (Python) Fall 2020

- Utilized the Twitter API to gather recent Tweets about stocks given a specific list of tickers
- Classified the sentiment of the Tweets using the Text Processing API as positive, negative, or neutral
- Computed average sentiment scores for each stock and compiled the data into a CSV or XLSX file using Pandas

Poker Game (Java) Fall 2020

- Developed a full-functioning game of Five Card Stud Poker complete with a graphical user interface
- Utilized encapsulation to divide the program into abstractions such as card, deck, hand, and poker game classes

Random Pattern Animations (JavaScript) Fall 2019

- Created a webpage to display a gallery of randomly generated, dynamic Processing.js animations
- Applied stochastic processes and inverses to randomize the motion and features of the patterns