

# OWEN MCCADDEN

(401) 585-6913

owenmc@live.unc.edu

<https://owenmccadden.github.io>

<https://www.linkedin.com/in/owenmccadden>

## EDUCATION

University of North Carolina at Chapel Hill – Chapel Hill, NC

May 2023

Bachelor of Science in Computer Science and Bachelor of Arts in Economics

- GPA 3.6/4.0

### Relevant Coursework

- Analysis of Algorithms, Bioalgorithms, Data Structures, Databases, Computer Organization, Web Development

## SKILLS

**Programming Languages:** Python, Java, Node.js, React.js, C, PHP

**Frameworks and Tools:** AWS (S3, Lambda, DynamoDB, API Gateway, Cognito, CDK), RESTful APIs, HTML/CSS, SQL, Git, Jira

**Certifications:** AWS Cloud Practitioner Essentials, Bloomberg Market Concepts

## EXPERIENCE

Amazon Web Services – Arlington, VA

Summer 2022

Software Development Engineer Intern

- Incoming SDE Intern Summer 2022

Principal Financial Group – Des Moines, IA (Remote)

May 2021 – Oct 2021

Data Engineer Intern

- Worked on an ETL data pipeline to migrate on-premises data from IBM DB2 to AWS S3 as part of an Agile team
- Utilized AWS CDK and Python to programmatically provision all infrastructure and AWS services for the data pipeline
- Improved the efficiency of the ETL by retaining certain tables on the server for the staging and production environments
- Designed and built a REST API for a collaborative intern project using API Gateway, Lambda, and DynamoDB

## PERSONAL PROJECTS

SST Demo (React.js, Node.js)

Fall 2021

- Developed a web application using the Serverless Stack framework to store and display notes and files for individual users
- Provisioned infrastructure using AWS CDK and built the backend using API Gateway, Dynamo DB, Lambda, and Node.js
- Utilized AWS Cognito / IAM for user authentication, Stripe for customer payments, and React.js / Bootstrap for the frontend

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
- Wrote the verses using a Python Lambda function and stored user-generated verses in a DynamoDB table

Algorithmic Trading Interface (Python)

Spring 2021

- Built a collection of classes and functions 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

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 a 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