Timothy O'Connor

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EDUCATION

University of Miami   Coral Gables, FL
Bachelors in Quantitative Economics, Minors in Computer Science and Finance   *Aug. 2019 – December 2023*

Relevant Coursework:

- Android Programming
- Data Structures and Algorithms
- Intro to Programming
- Mathematical Applications in Economics
- Advanced Macroeconomics
- Advanced Econometrics

EXPERIENCE

Software Development and Finance Intern   June 2021 – August 2021
Effectual Inc.   *Jersey City, NJ*
- Developed a REST API using FastAPI and PostgreSQL to store data from learning management systems
- Developed a full-stack web application using Flask, React, PostgreSQL and Docker to analyze GitHub data
- Explored ways to visualize GitHub collaboration in a classroom setting

Google Student Developer Club Member   August 2019 – Present
University of Miami   *Coral Gables*
- Participated in various coding and development activities organized by the club
- Collaborated with fellow students on projects and coding challenges
- Attended workshops and events to enhance coding skills and knowledge

PROJECTS

Simple Search Engine | *Java*   May 2023
- Developed a search engine using all the structures and algorithms learned in class.
- Implemented efficient data structures for indexing and retrieval.
- Optimized search algorithms for faster query processing.
- Collaborated with team members to ensure smooth integration of features.

NFL Machine Learning Sports Prediction | *Python*   August 2023 – Present
- Designed and implemented a machine learning-based sports prediction system for NFL games.
- Objective: To outperform traditional predictions using algorithms and data analysis.
- Step-By-Step Breakdown:
  * Data Collection: Gathered historical NFL game data, including detailed statistics, team information, and game results. Utilized a web scraper for data extraction from pro football reference.
  * Data Analysis: Employed machine learning algorithms to analyze the collected data and identify patterns.
  * Model Training: Developed and trained predictive models using the processed data.
  * Evaluation: Assessed the performance of the models through testing and validation processes.
  * Iterative Improvement: Continuously refined the models based on feedback and updated data.

Hackathon Project - Water Consumption Tracker | *Python*   April 2023
- Developed an innovative application during a hackathon to track water consumption based on the food consumed
- Utilized OpenAI's API to analyze food data and determine the corresponding water usage
- Designed and implemented a user-friendly website for deploying the application
- Collaborated with a team to integrate backend functionality and ensure seamless user experience
- Presented the project to judges and received positive feedback on its creativity and environmental impact

TECHNICAL SKILLS

Languages: Java, JavaScript, Python, R, CSS, HTML
Frameworks: React, Git, Linux
Developer Tools: Git, Google Cloud Platform, VS Code, Visual Studio, PyCharm, IntelliJ, Eclipse
Libraries: Pandas, NumPy, Matplotlib
Document Preparation: LaTeX