

Timothy O'Connor

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EDUCATION

University of Miami

BS Computer Science, Minors in Quantitative Economics and Finance

Coral Gables, FL

August 2019 - December 2023

Relevant Coursework:

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

EXPERIENCE

Software Engineer

City of Coral Gables IT Lab

January 2024 - Present

Coral Gables, FL

- Crafted a Python script using ArcGIS Rest API and Pandas to automate processing of fire and police alarm data, reducing folio number retrieval time by 75% for false alarms.
- Created a knowledge graph linking AWS Neptune and AWS S3 for quick queries across servers.
- Implemented Scrum methodologies resulted in a 30% increase in the frequency of iterative updates provided to supervisors.

Software Engineer Intern

Effectual Inc.

May 2023 - August 2023

Jersey City, NJ

- Achieved a 25% reduction in data retrieval time by developing a REST API with FastAPI and PostgreSQL.
- Constructed a cloud-native application on AWS, resulting in a 40% improvement in performance metrics through infrastructure automation.
- Delivered clear and concise project updates during weekly team briefings, leading to a 20% improvement in task completion rates and enhanced team collaboration.

Google Student Developer Club

University of Miami

August 2019 - December 2023

Coral Gables, FL

- Hosted 10 coding events, including 2 hackathons which drew students from FIU, Miami-Dade, and FAU.
- Collaborated with 3 fellow UMiami students on project, "Water Consumption Tracker," resulting in 2nd place.
- Attended over 20 workshops covering topics such as web development, machine learning, and app development.

PROJECTS

Deluca Foundation Mobile App | Javascript

January 2024 - May 2024

- Used React Native and Firebase to deploy an app teaching business skills, reaching 500+ users in 1st month.
- Converted Figma designs into responsive UI with React Native, cutting development time by 25%.
- Implemented React Navigation for smooth app navigation, boosting user retention by 20%.

Modern Portfolio Theory (MPT) Optimizer | Python

April 2024 - May 2024

- Engineered a Python portfolio optimizer in Jupyter Notebook and Tkinter, boosting investing efficiency by 30%.
- Calculated Sharpe ratios using Yahoo Finance data, resulting in a 15% increase in risk-adjusted returns.
- Visualized efficient frontier in Matplotlib, yielding a 25% improvement in understanding risk-return dynamics.

NBA Machine Learning Sports Prediction | Python

August 2023 - February 2024

- Designed a machine learning-based sports prediction system using data from 40 NBA games.
- Implemented feature engineering methods to enhance performance resulting in 15% increase from baseline.
- Achieved a prediction accuracy rate of 75% in initial testing, surpassing traditional prediction models by 15%.

Hackathon Project - Water Consumption Tracker | Python

April 2023 - May 2023

- Developed an app correlating water intake with food consumption, leading to a 30% rise in water awareness.
- Employed OpenAI's API to calculate water usage, streamlining water consumption tracking by 40%.

TECHNICAL SKILLS

Languages: Java, JavaScript, Python (Fast API), R, CSS, HTML

Frameworks: React, React Native, Node.js, Flask

Developer Tools: Git, Google Cloud Platform, VS Code, Visual Studio, PyCharm, IntelliJ, Eclipse, Docker, PostgreSQL, Vercel

Libraries and Cloud Services: Pandas, NumPy, Matplotlib, AWS, Azure, Google Cloud Platform

Outside Achievements: Eagle Scout