

Michael Goldfarb

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EDUCATION

Lehigh University

Bachelor of Science with Honors, Computer Science & Business – GPA: (3.73/4)

Bethlehem, PA

May 2025

- Relevant Coursework: Software Engineering, Database Systems, Programming & Data Structures, Business Statistics

WORK EXPERIENCE

[A.I.M.S Lab Mount Sinai Hospital](#)

Machine Learning Intern

New York, NY

Dec. 2023 - Present

- Engineered innovative models for multimodal data, linking genetic, clinical, and social factors in disease analysis
- Contributed to the deployment of advanced augmented intelligence models using deep learning, revolutionizing patient care
- Led transformative disease prediction initiatives, ensuring early interventions and overall improved patient outcomes

Lehigh University STEM-SI

Software Engineer Intern

Bethlehem, PA

June 2023 - Aug. 2023

- Trained models based on historical data from the CDC to predict futuristic amounts of individuals infected with influenza
- Introduced parallel processing for enhanced model scalability, boosting runtime efficiency by 24% to optimize performance
- Created powerful data visualizations in Python to provide actionable insights into mitigating the spread of influenza

Lehigh Blockchain

Undergraduate Researcher

Bethlehem, PA

Aug. 2023 - Present

- Create a pseudo verkle tree in Rust using the Marlin library and the ark_works cryptographic libraries
- Assist in creating polynomial commitments, insertion into trie, and verify proof of membership and non-membership
- Simplified verkle tree proof, combining commitments, enabling uniform membership and non-membership proofs

P.C. Rossin College of Engineering

Undergraduate Teaching Assistant

Bethlehem, PA

Aug. 2023 - Dec. 2023

- Hold weekly office hours, lead lab sections, and grade assignments for a 100+ student data structures course
- Expertise in debugging Java and Python, resolving students' issues with Git and Linux

PERSONAL PROJECTS

[MLB Game Predictor](#) | Python, Spring Boot, React JS, PostgreSQL

Founder and Developer

New York, NY

May 2023 - Sept. 2023

- Use machine learning to predict winner of MLB game; Scrape MLB Stats API to get stats from 2,430 past/current games
 - Achieve ~60% accuracy in predictions in June/July 2023
- Develop linear regression & random forest models to predict the winner; Clean & filter datasets using NumPy/Pandas

[Mountain Hawk Food Finder](#) | Swift, Spring Boot, Python, Firebase

Creator and Developer

New York, NY

June 2023 - Oct. 2023

- Developed a visually-appealing full stack iOS app for Lehigh dining where users can easily navigate between dining options
- Implemented backend code to store user information, ratings (average + given) for each item, business hours, & daily menus

[Solidity Semiswap](#) | Solidity

Programmer

Bethlehem, PA

Nov. 2023 - Dec. 2023

- Designed an ERC-20 to Ether Automatic Market Maker DEX in Solidity for my Blockchain Algorithms and Systems class
- The user can provide liquidity, estimate liquidity, withdraw liquidity, swap ERC to ETH, and swap ETH to ERC

TECHNICAL SKILLS

Languages: Java, Python, Swift, HTML, CSS, JavaScript, SQL, Rust, C++

Technologies: React JS, Spring Boot, Postman, Pandas, PostgreSQL, OAuth, Bash, Firebase, Git, Linux

Clubs: Lehigh Coders Community (Professional Development Chair), Blockchain Club, AEPi (Treasurer)