

Michael Goldfarb

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EDUCATION

Lehigh University

Bethlehem, PA

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

May 2025

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

WORK EXPERIENCE

Lehigh University STEM-SI

Bethlehem, PA

Software Engineer Intern

June 2023 - Aug. 2023

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

Lehigh Blockchain

Bethlehem, PA

Undergraduate Researcher

Aug. 2023 - Present

- Create a pseudo verkle tree in Rust using the Marlin library and the ark_works cryptographic libraries
- Create polynomial commitments, insertion into trie, and verify proof of membership and non-membership

P.C. Rossin College of Engineering

Bethlehem, PA

Undergraduate Teaching Assistant

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

New York, NY

Founder and Developer

May 2023 - Sept. 2023

- Use machine learning to predict winner of MLB game using matchup statistics from past & current games
 - Achieve ~60% accuracy in predictions in June/July 2023
- Scrape MLB Stats API to store data from 2,430 games in backend; Clean & filter datasets using NumPy/Pandas
- Develop linear regression & random forest models to predict winner; Store winner in database and backend
- Create companion website with game predictions, prediction accuracy by team, and overall prediction record

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

New York, NY

Creator and Developer

June 2023 - Oct. 2023

- Developed a full-stack iOS app for Lehigh dining with a visually appealing and user-friendly interface
- Implemented backend code to store user information, ratings (average + given) for each item & daily menus
- Designed/optimized frontend to allow user to view eateries on maps & easily navigate between dining options

[Local Dropbox Project](#) | C++

Bethlehem, PA

Programmer

Nov. 2022 - Dec. 2022

- Developed local server client system using hash maps & linked lists to effectively manage and store files
- The client connects to the server, reads the message to a buffer, and decrypts/deserializes the message

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)