# Michael Goldfarb

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#### **EDUCATION**

Lehigh University Bethlehem, PA

Bachelor of Science with Honors, Computer Science & Business - GPA: (3.70/4)

May 2025

Relevant Coursework: Software Engineering, Database Systems, Programming & Data Structures, AI Theory and Practice

#### **EXPERIENCE**

Oracle Bethlehem, PA

Software Engineer (Capstone)

Jan. 2024 - Present

- Adjust Oracle database for ECB digital euro, leveraging PL/SQL, REST APIs, VBCS, and optimization
- Lead database sharding implementation to enhance database scalability and performance for high-volume data management
- Assist with Oracle database stress and benchmark tests versus OpenCBDC; create mobile wallet app & monitoring GUI

#### A.I.M.S Lab Mount Sinai Hospital

New York, NY

Machine Learning Intern

Jan. 2024 - Present

- Engineer innovative models for multimodal data, linking genetic, clinical, and social factors in disease analysis
- Contribute to the deployment of advanced augmented intelligence models using deep learning algorithms
- Create generalized disease prediction initiatives, ensuring early interventions and overall improved patient outcomes

Lehigh Blockchain Bethlehem, PA

Undergraduate Research Fellow

Aug. 2023 - Present

- Currently working on a Stellar-like hierarchical consensus mechanism to model a global cross-CBDC payment solution
- Created a pseudo verkle tree in Rust using the Marlin library and the ark\_works cryptographic libraries
- Assisted in creating polynomial commitments, insertion into trie, and verify proof of membership and non-membership

STEM-SI Bethlehem, PA

Software Engineer Intern

May 2023 - Aug. 2023

- Trained models based on historical data from the CDC to predict futuristic amounts of individuals infected with influenza
- Created powerful data visualizations in Python to provide actionable insights into mitigating the spread of influenza

### **PROJECTS**

MLB Game Predictor | Python, Pandas, NumPy, Spring Boot, React JS, PostgreSQL

New York, NY

Founder and Developer

May 2023 - Present

• Use machine learning to predict winner of MLB game; Scrape MLB Stats API to get stats from 2,000+ games

**OhConnections** | HTML, CSS, React JS

New York, NY

Programmer / Creator

Mar. 2024 - Present

• Create MLB version of New York Times' Connections with over 1k users

Mountain Hawk Food Finder | Swift, Spring Boot, Python, Firebase

New York, NY

Creator and Developer

June 2023 - Oct. 2023

• Developed iOS app for Lehigh dining; backend code storing ratings (average/given) for items, business hours, & daily menus

Solidity Semiswap | Solidity

Bethlehem, PA

Programmer

Nov. 2023 - Dec. 2023

• Designed ERC-20 to Ether Automatic Market Maker DEX; user can provide/estimate/withdraw liquidity & swap ERC/ETH

## **SKILLS**

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

**Technologies:** React JS, Spring Boot, Postman, Pandas, NumPy, PostgreSQL, OAuth, Bash, Docker, Firebase, AWS, Git, Linux **Clubs**: Lehigh Coders Community (Professional Development Chair), Blockchain Club, AEPi (Treasurer, Academic Chair)