

# Michael Goldfarb

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[in linkedin](#) | [website](#) | [github](#)

## EDUCATION

### Bachelor of Science with Honors, Computer Science & Business

Aug. 2021 - May 2025

Lehigh University – GPA: 3.70

Bethlehem, PA

**Relevant Coursework** Software Engineering, Database Systems, Programming & Data Structures, Systems Software

## SKILLS

**Languages** Expert: Java, Python, HTML, CSS, JavaScript, SQL | Proficient: Swift, Rust, C++ | Familiar: Go, Solidity, C

**Technologies** React JS, Spring Boot, Postman, Pandas, NumPy, PostgreSQL, MongoDB, Docker, Bash, AWS, Git, Linux

**Involvement** Lehigh Coders Community (Professional Dev. Chair), Blockchain Club, AEPI (Treasurer, Academic Chair)

## EXPERIENCE

### Oracle

Jan. 2024 - Present

Software Engineer

Bethlehem, PA

- Improve transaction speed by 25% for ECB digital euro by adjusting Oracle DB using PL/SQL, REST APIs, and VBCS.
- Build React frontend to display real-time data from the optimized database, enhancing user accessibility by 20%.
- Lead translation of PL/SQL procedures into JavaScript, reducing network overhead and boosting database efficiency.

### AIMS Lab Mount Sinai Hospital

Jan. 2024 - Present

Machine Learning Intern

New York, NY

- Parse data from 20k+ patient summary PDFs, extracting critical information to enhance model training and validation.
- Develop a streamlined approach to extract complex clinical data from PDFs, improving information retrieval by 35%.
- Creating 1+ billion parameter merged dataset, integrating video/text data to prepare for deep learning model training.

### Lehigh Blockchain

Aug. 2023 - Present

Undergraduate Research Fellow

Bethlehem, PA

- Develop a Stellar-like hierarchical consensus mechanism to model a decentralized global cross-CBDC payment solution.
- Deploy & invoke Soroban smart contracts across 5+ machines to model regions, boosting transaction efficiency by 30%.
- Create a pseudo verkle tree in Rust with Marlin and ark\_works libraries, improving cryptographic efficiency by 25%.

### Outlier

Jun. 2024 - Aug. 2024

LLM QA Engineer

Remote

- Train and fine-tune a generative AI model for the Bulba project using RLFH, enhancing response accuracy by 30%.
- Evaluate tools and monitor model decisions by analyzing JSON code, ensuring precise & reliable AI-generated content.
- Create and refine AI prompts, optimizing the prompts for high-quality outputs and reducing response errors.

### STEM-SI

May 2023 - Aug. 2023

Software Engineer Intern

Bethlehem, PA

- Trained models on historical CDC data, achieving 85% prediction accuracy in future influenza cases.
- Designed powerful data visualizations in Python to provide actionable insights into mitigating influenza spread.

## PROJECTS

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

May 2023 - Present

Creator and Developer

New York, NY

- Use machine learning to predict winner of MLB game; Scrape MLB Stats API to get stats from 2,430 past/current games.
- Develop linear regression & random forest models to predict winners; Clean & filter 20+ datasets using NumPy/Pandas.
- Create companion website with game predictions and prediction accuracy by team, attracting 500+ visitors monthly.

### OhConnections [🔗](#) [🔗](#) | HTML, CSS, React JS

Mar. 2024 - Jul. 2024

Creator and Developer

New York, NY

- Created MLB version of New York Times' Connections, gaining 1,000+ active users within the first month of launch.
- Developed logic and state management for real-time user interactions, including user input handling and animations.
- Seamlessly integrated a user-friendly interface with visual MLB player groupings, increasing user retention by 25%.

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

Jun. 2023 - Oct. 2023

Creator and Developer

New York, NY

- Developed a visually-appealing full stack iOS app for Lehigh dining, enabling easy navigation between dining options.
- Implemented backend code to store user information, item ratings (average/given), business hours, and daily menus.
- Designed and optimized app frontend to allow user to view eateries on Apple Maps and easily find dining options.