# **Mickey Shamah**

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### **EDUCATION**

**New York University**, Tandon School of Engineering, Brooklyn, NY

May 2025 (expected)

Bachelor of Science in Computer Science, Minor in Mathematics

Cumulative GPA: 3.65/4.0, Dean's List (2021-2023)

Summer STEM at The Cooper Union, New York, NY

May 2021

Concentration: Computer Engineering and Robotics

### PROFESSIONAL SUMMARY

Computer Science and Mathematics student passionate about innovation and technology. Skilled in technical problem-solving, with internship experience in machine learning research, deep involvement in several clubs and team projects centered around emerging technology, and coursework focused on real-world applications. Continuous learner seeking opportunities to grow in a culture of collaboration and technical excellence.

### **EXPERIENCE**

# **Princeton - Intel Cybersecurity and Machine Learning Research**, Princeton, NJ

June - August 2023

- <u>Intern</u>
- Developed a telemetry imputation layer using a transformer encoder (Python) to refine coarse-grained latency, specifically One Way Delay, across multiple network paths.
- Researched under the supervision of Dr. Maria Apostolaki and Dr. Aarti Gupta, Professors of Computer Science at Princeton University, and Dr. Jason Fung, Director of Offensive Security Research at Intel to accomplish objectives for a National Science Foundation Project.

# NYU Blockchain and Fintech Club, New York, NY

October - December 2023

### Backend Team Member

- Collaborated with a cross-functional team to develop a decentralized poker application, leveraging blockchain technology and implementing WebSockets for real-time Python-based communication, thus enhancing the platform with secure and efficient data handling.
- Developed a robust card encryption system using NumPy and hashlib, integrating it with asymmetric RSA encryption techniques for game state verification.
- Implemented Zero-Knowledge Proof shuffling algorithms to ensure game fairness and privacy.

# **NYU Self-Drive**, Brooklyn NY

February - October 2023

### Member

- Utilized Python to design and implement dynamic driving environments for testing autonomous vehicles, which have been used to successfully test and refine 3 different autonomous vehicle iterations.
- Employed ROS for synchronizing complex autonomous vehicle operations and Gazebo to create realistic, dynamic driving environments for testing autonomous vehicle behaviors.

### **PROJECTS**

### **Online Air Ticket Reservation System** (GitHub link)

- Designed and implemented a web-based air ticket reservation system using Python Flask and a MySQL database, featuring a REST API for real-time flight data integration.
- Managed full-stack development, from database schema design to API endpoint creation, enabling seamless interactions for customers and airline staff.

## Fantasy Baseball Drafting software (GitHub link)

- Developed a Fantasy Baseball drafting and prediction software using Python.
- Utilized Python Machine Learning libraries, specifically Linear Regression and K-Nearest Neighbors, to forecast player performance.

## **NewsBrevity - Automated Summarization Tool** (GitHub link)

- Designed an automated system to scrape and store news articles into a MySQL database.
- Integrated the OpenAI GPT-3.5 Turbo model to enable state-of-the-art article summarization.
- Devised a text segmentation strategy for lengthy articles with the Gensim library, using the TextRank algorithm and Term Frequency (TF) analysis to efficiently extract crucial content segments.

### **SKILLS**

**Programming Languages/ Technologies:** Python, C++, Matplotlib, SQL, Solidworks, Verilog, HTML, CSS, Tableau, Git, Pandas, TensorFlow, Excel