

ARI MIRSKY

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EDUCATION

Cornell University

John McMullen Dean's Scholar

B.S. in Computer Science, In Progress (Anticipated May 2025)

GPA: 4.06/4

Ithaca, NY

Aug. 2021 – Present

Briarcliff High School

Regents Diploma with Honors and Distinction in Mathematics

GPA: 101.36/100

Briarcliff Manor, NY

Sep. 2017 – June 2021

EXPERIENCE

Software Engineer, Amazon

UnifiedAuth Team

May 2023 – Aug. 2023

New York, NY

- Visualized call graph between microservices within Amazon
- Used SQL queries through Amazon's Redshift to process telemetry data
- Created a microservice using EC2 instances alongside S3 buckets to respond to queries that allowed services to determine their callers' Transitive Authentication adoption status
- Preprocessed data hourly to maintain low latency responses with up-to-date information

Programmer Analyst, Niemack Research Group

Cornell University

May 2022 – May 2023

Ithaca, NY

- Modernized legacy excel programs into Python
- Created an automated data pipeline from telescope parameters to constraints on cosmological parameters
- Published open source generalizable code for other telescope designs and locations
- Produced simulated maps of the sky using calculated sensitivity data

Navigation Team Lead, Cornell Autonomous Bicycle

Cornell University

May 2022 – Present

Ithaca, NY

- Managed a software team of 6 developers
- Researched, designed, and implemented reinforcement learning algorithms for obstacle avoidance, including Q-learning
- Researched and designed supervised machine learning algorithm for determining how densely to sample the future state space
- Constructed a future plan for the team to transition from an autonomous bicycle to autonomous drone once testing is finalized

Navigation Developer, Cornell Autonomous Bicycle

Cornell University

Oct. 2021 – May 2022

Ithaca, NY

- Contributed to a repository with 25k+ lines of code
- Worked with a team to create path following and collision avoidance algorithms
- Integrated bicycle hardware with pathing software using ROS

PROJECTS

Discord Bot | Python, Discord.py

June 2021 – July 2021

- Created a discord bot that responded to messages sent in selected discord servers
- The bot asynchronously responded to user input
- Integrated with open source Discord.py

RELEVANT COURSES

- Introduction to the Analysis of Algorithms
- Computer System Organization and Programming
- Data Structures and Functional Programming
- Object Oriented Programming and Data Structures
- Discrete Structures
- Honors Linear Algebra
- Operating Systems
- Probability and Statistics

TECHNICAL SKILLS

Languages: Java, Python, JavaScript, HTML/CSS, R, OCaml, C++, TypeScript, Rust

Frameworks/Libraries: Swing, FastAPI, Discord.py, ROS, Gazebo, NumPy, Matplotlib

Developer Tools: Git, Visual Studio Code, Eclipse, BlueJ, Jupyter Notebook, Conda, React