

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

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