

# ARI MIRSKY

Ithaca, NY

📞 914-844-6779

✉ [arimirsky@gmail.com](mailto:arimirsky@gmail.com)

🌐 [linkedin.com/in/arimirsky](https://www.linkedin.com/in/arimirsky)

🐙 [github.com/AriMirsky](https://github.com/AriMirsky)

## Education

---

### Cornell University

Aug. 2021 – May 2025

Bachelor of Science in Computer Science, GPA: 4.058/4.0

Ithaca, NY

## Experience

---

### Cornell University

Aug. 2023 – Present

Teaching Assistant

Ithaca, NY

- Awarded CIS TA Recognition Award for excellent teaching skills and examples
- Led recitations to reinforce class concepts
- Held office hours to help students understand the class material
- Was a teaching assistant for Discrete Structures for Fall 2023 and Analysis of Algorithms for Spring 2024, Fall 2024

### Amazon

May 2024 – Aug. 2024

Software Engineer Intern

New York, NY

- Utilized AWS Glue, Lambda functions, and CloudWatch to determine and visualize the correctness of datasets
- Saved at least 5 SDE hours/month of alarm debugging with better visualization of dataset health metrics over time
- Eliminated 25+ tickets/month with alarm consolidation and the deprecation of old, seldom used systems

### Amazon

May 2023 – Aug. 2023

Software Engineer Intern

New York, NY

- Employed AWS managed Grafana to create dashboards for internal team usage and for other customers within Amazon
- Used SQL queries through Amazon's Redshift to process telemetry data
- Created a microservice using EC2 instances alongside S3 buckets that allowed services within Amazon to determine their callers' Transitive Authentication adoption status
- Preprocessed data hourly to maintain low latency responses with up-to-date information

### Niemack Research Group

May 2022 – Jun. 2023

Programmer Analyst

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

## Projects

---

### Cornell Autonomous Bicycle

Oct. 2021 – Present

Software Team Lead

Ithaca, NY

- Designed and allocated projects for a team of 15 people
- Managed the integration of the vision, navigation, and controls systems
- Directed the creation of connections between software and hardware on the physical bike

Navigation Subteam Lead

- Researched, designed, and implemented reinforcement learning algorithms for obstacle avoidance, including Q-learning
- Researched and designed supervised machine learning algorithm using a random forest approach for determining how densely to sample the state space
- Constructed a future plan for the team to transition from an autonomous bicycle to autonomous drone once autonomous bicycle testing is finished

Navigation Developer

- 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

## Relevant Coursework

---

- |                           |                                |                               |                              |
|---------------------------|--------------------------------|-------------------------------|------------------------------|
| • Analysis of Algorithms  | • Computer System Organization | • Functional Programming      | • Discrete Structures        |
| • Reinforcement Learning  | • Computer Graphics            | • Object Oriented Programming | • Reinforcement Learning     |
| • Computer Vision         |                                |                               | • Operating Systems          |
| • Foundations of Robotics |                                |                               | • Probability and Statistics |

## Technical Skills

---

**Languages:** TypeScript, SQL, Java, Python, Bash, JavaScript, HTML/CSS, R, OCaml, C, C++

**Developer Tools:** NumPy, Matplotlib, ROS, Swing, Discord.py

**Technologies:** AWS, Grafana, Git, Visual Studio Code, IntelliJ, Eclipse, BlueJ, Jupyter Notebook, Conda, React