

# Rob Mosher

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## EDUCATION

### Cornell University, College of Engineering

Ithaca, NY

*Candidate for Bachelor of Science, Dual Major in Computer Science and Information Engineering*

*August 2021-Present*

*GPA: 3.67, Dean's List: All Semesters*

*Relevant Coursework: Object-Oriented Programming & Data Structures (Java), Functional Programming and Data Structures (OCaml)*

*Discrete Structures, Optimization I, Statistics and Probability II, Machine Learning, Stochastic Processes, Optimization II*

## PROFESSIONAL EXPERIENCE

### MIT Lincoln Laboratory

Lexington, MA

*Incoming Intern - Summer Research Program – Group 01, AI Technology*

*May 2023 – August 2023*

- Will develop artificial intelligence technologies under security clearance to solve complex challenges for national defense.
- Research areas will include exploring network science and its applications; employing AI as a teammate in making decisions; developing technology to increase trust in AI.

### Richardson Lab of Civil and Environmental Engineering

Ithaca, NY

*Computer Science Research Assistant*

*February 2022 – Present*

- Reduced sample analysis time by 99% by developing a Python script to automate the processing of collected data.
- Improved data return quality by 95% by using ImageJ script to automate identification of harmful algae presence in water samples based on physical markers from selected regions of interest and removing unusable data.
- Increased volunteer productivity by rewriting and simplifying the user interface and image submission process.
- Coordinated and maintained effective communication with volunteer teams across the Finger Lakes region.

## PROJECTS AND LEADERSHIP

### Cornell ORACL Research Program

Ithaca, NY

*General Motors Advanced Analytics Center Strategic Pricing Team Lead*

*September 2022 – Present*

- Led team of 14 in consulting projects regarding electric vehicle pricing and distribution logistics
- Applied game theory analysis of econometric models to model advertising and dealership competition in the automotive industry

*Mars Inc. Data Science Team Lead*

- Led team of 8 in machine learning model analysis and improvement in advertising and retail demand forecasting in collaboration with Mars Inc.
- Organized and led team meetings, enforced completion of deliverables, and delivered presentations to Mars Inc. representatives weekly.

### Engineers for a Sustainable World

Ithaca, NY

*Bioenergy Implementation Sub Team Lead*

*October 2021 – February 2023*

- Coordinated responsibilities for team of 7 through complex techno-economic modeling of chemical engineering processes and facility construction and maintenance for bioleaching and biosorption of rare earth metals.
- Organized and led project team recruitment processes including information sessions, virtual and in-person interviews and deliberations/decisions for applicants.

### Phi Sigma Kappa Fraternity

Ithaca, NY

*President, House Manager*

*January 2022 – Present*

- Executive leader of an organization of 75 diverse individuals and a budget of over \$200K per semester. Manages the activities of the chapter internally and serves as the face of the chapter externally.
- Responsible for defining the values and goals for the organization and overseeing all community service projects, social events, food service, finances, and recruiting.
- Managed the weekly maintenance of the house. Planned and led a 3-day work party to sand, repair and paint the exterior of the house, replace lighting, make general repairs and prepare the house for its annual city inspection.

## SKILLS AND INTERESTS

*Python (NumPy, Pandas, CVXPY, SciPy), Java, OCaml, ImageJ, R, HTML/CSS, SQL, Tableau, Git*