**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

*Summer Research Program – Group 01, Artificial Intelligence Technology May 2023 – August 2023*

• Incoming artificial intelligence technologies under security clearance to solve complex challenges for national defense.

• Research areas included 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, OCam1, ImageJ, R, HTML/CSS, SQL, Tableau, Git*