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: 3.7, 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, PyTorch), Java, OCam1, ImageJ, R, HTML/CSS, SQL, Tableau, Git