

ABBIE ELISON

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Education

Cornell University | College of Engineering (Ithaca, NY)

Master of Engineering, Operations Research & Information Engineering

Expected Dec 2026

Bachelor of Science, Operations Research & Engineering

Expected May 2026

Minors in Applied Math & Creative Writing

Hunter R. Rawlings III Cornell Presidential Research Scholar

- **Some Relevant Courses:** Principles of Supply Chain Management, Reinforcement Learning, Engineering Stochastic Processes, Optimization I & II, Data Mining & Machine Learning, Manufacturing Systems Design

Research Experience

Operations Research Independent Project | Cornell University (Ithaca, NY)

March 2024 – Present

- Developing a stylized inventory assortment model of the waste trade based on an extensive literature review.
- Created and presented a poster on my summer 2024 internship experience for the Cornell Commitment Showcase.

Green Materials Research Assistant | Cornell University (Ithaca, NY)

Dec 2021 – Aug 2023

- Applied cold and hot press treatments to fungi brick composites. Sawed samples. Ran mechanical (bending, compression, tensile) tests on them. Conducted data analysis in MATLAB and Excel; presented my conclusions to the architecture and agriculture labs collaborating on the project.
- Designed and threaded metal plates for compression tests on an Instron.
- Conducted self-designed experiments to increase sisal fiber strength. Performed tensile tests and data analysis.

Applied Physics Research Assistant | Arizona State University (Tempe, AZ)

Dec 2019 – May 2021

Selected as a member of ASU Science and Engineering Experience (SCENE)

- Computed the surface energy of LiNbO₃ wafers using experimental data. Analyzed the calculated results.
- Co-authored and conducted a patent search for published abstracts. Presented academic posters at conferences.
- Fabricated InnovaStrip™ slides for small volume blood diagnostics in a Bio-Safety Level III / ISO 4 Laboratory.
- Drafted technical drawings for InnovaStrip™ slides and an Alzheimer biosensor using AutoDeskd CAD.

Internship Experience

AI Market Research Intern | Klarbook, Inc. | Remote | Unpaid | 10 hours /week

July – Aug 2025

- Conducted market research in (1) Tech-Enabled Insurance & Climate Risk and (2) Class Action Lawsuits.
- Cold emailed project leads to fill out a survey on workflows and AI usage. Identified barriers to entry in vertical (2).

Projects

Data Analysis Group Project

Feb – May 2025

Selected, cleaned, merged multiple messy data sets. Performed statistical analysis and linear regression. Presented results.

Skills

Languages: SQL, Python, R, MATLAB, Java

Software Tools: Gurobi Optimizer, Tableau, Excel, PowerPoint, Word, Google Docs, Google Sheets

Libraries: PuLP, NumPy, Matplotlib, scikit-learn, SciPy, pandas, GeoPandas, PyTorch

Leadership & Communication Experience

Stand Up Paddleboard & Canoe Instructor | Cornell Outdoor Education (Ithaca, NY)

June 2024 – Present

- Taught paddling strokes. Planned & led team building activities for PE & recreational special programs.

Guest Service Associate | Cornell University Conference & Events Services (Ithaca, NY)

May – Aug 2022

- Greeted, checked in, and answered questions of conference guests.
- Assisted guests through the night with late check ins, lock outs, and other urgent inquiries during on-call shifts.