

Dagny Davis

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Nuclear Science and Engineering student interested in nuclear materials, energy systems, and economically grounded approaches to global decarbonization and security.

EDUCATION

Massachusetts Institute of Technology

Class of 2029

Candidate for S.B. Nuclear Science & Engineering, Minor in Economics

Cambridge, Massachusetts

Extracurriculars: American Nuclear Society, NAIA, AISES, Concourse Learning Community

Coursework: Foundations in Mathematics, Physics, Chemistry, Programming, Economic Systems, and Fission Physics

TECHNICAL SKILLS

- Python, Data Analysis, Microscopy Fundamentals, and Radiation-Matter Interaction Concepts

EXPERIENCE

Nuclear Materials Research Group, Jossou Lab

Cambridge, Massachusetts

Student Researcher, November 2025 – Present

- Investigate radiation-induced degradation in lithium nickel manganese cobalt oxide (NMC) cathode materials for space-relevant battery applications.
- Connect microstructural defect evolution to expected impacts on electrochemical performance and long-term battery reliability.

Habits of Preceptors Academy

Phoenix, Arizona

Guest Writer, June 2024 – Present

- Published articles on the student experience for a national teaching and learning community of healthcare professionals.
- Highlighted mentorship, collaboration, and knowledge exchange across technical and non-technical fields.

Law Office of Katherine Kraus

Peoria, Arizona

Legal Intern, August 2024 – June 2025

- Developed document-management and information-synthesis systems applicable to technical reporting.
- Prepared client summaries, documentation, and case notes under strict confidentiality requirements.
- Supported regulatory compliance tasks by ensuring adherence to court and agency procedural requirements.

ADVOCACY AND VOLUNTEERING

Undergraduate Association Committee on Sustainability (UA Sustain)

Cambridge, Massachusetts

Decarbonization Group Chair, September 2025 – Present

- Draft implementation strategies for MIT and Cambridge climate initiatives aligned with MIT's Office of Sustainability.
- Lead the Cross-Campus Collaboration for Climate Initiatives, building partnerships among MIT, local universities, and city officials to coordinate large-scale decarbonization efforts.

Society of Women Engineers

Cambridge, Massachusetts

Outreach Chair, September 2025 – Present

- Coordinate guest speakers from academia, industry, and the MIT community to lead seminars on college pathways, engineering disciplines, and career exploration for students from elementary through college.

Guest Yoga Instructor

Kathmandu, Nepal

Advanced Registered Yoga Teacher (RYT-500), April 2024 – Present

- Completed advanced training in Kundalini, Ashtanga, and Vinyasa yoga in Kathmandu, Nepal
- Led public workshops on mindfulness, breathwork, and yoga for diverse groups, including ASU, Luke AFB, and MIT.