

Alfonso E. Barbaran

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EDUCATION

Cornell University

Ithaca, NY

Bachelor of Science in Civil Engineering

Expected Graduation: May 2028

Relevant Coursework: Structural Mechanics, Engineering Computation, CAD for Infrastructure, Project Management

WORK EXPERIENCE

Engineers Without Borders

Ithaca, NY

Domestic Subteam Member

September 2025- Present

- Collaborate with peers and community partners to design sustainable engineering solutions for domestic infrastructure challenges.
- Apply classroom knowledge to real-world projects, emphasizing user-centered design, feasibility analysis, and community impact.
- Participate in design reviews, technical discussions, and cross-functional teamwork to ensure long-term project viability.
- Gain exposure to project management, site-specific constraints, and community engagement through hands-on involvement.

Cornell EMPower Mentorship Program

Ithaca, NY

Mentor

September 2025- Present

- Selected as a peer mentor to support first-year engineering students through academic, social, and professional transitions.
- Provide guidance on research preparation, leadership development, and campus resource navigation as part of the OIE Scholar community.
- Foster meaningful connections through one-on-one mentorship and group events, contributing to student retention and community building.
- Develop leadership, communication, and problem-solving skills by supporting mentees in goal setting, academic planning, and personal growth.

Engineering Summer Math Institute

Ithaca, NY

Researcher

June 2025- August 2025

- Built a discrete-event simulation (Python/SimPy) to model project permitting backlogs, similar to infrastructure scheduling and resource allocation in civil engineering.
- Evaluated how policy reforms affect project timelines and environmental impact, paralleling civil project planning and sustainability analysis.
- Presented results with technical visuals and a research poster, demonstrating skills in engineering communication.

Audible

Newark, NJ

Intern

August 2023- June 2024

- Worked cross-functionally with software engineers and product managers to build and enhance app features using SwiftUI, applying engineering principles to improve usability.
- Conducted user research and synthesized findings into actionable product enhancements, contributing to improved customer satisfaction.
- Participated in agile project cycles, including sprint planning and retrospectives, reinforcing project scheduling and collaborative workflows.
- Gained experience in cross-disciplinary teamwork, documentation, and stakeholder communication—skills transferable to construction project teams.

SKILLS

- Construction & Engineering Tools: Microsoft Excel, AutoCAD, Figma
- Project Management: JIRA, Trello, Agile/Scrum practices
- Technical Knowledge: Structural Analysis, Drafting & Design, Engineering Calculations
- Soft Skills: Collaboration, Public Speaking, Problem-Solving, Deadline Management