

Garrett Smith

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538 Backbone Rd. Sewickley, PA 15143

724.900.9722

EDUCATION

Cornell University, College of Engineering, Ithaca, NY

Expected May 2027

Bachelor of Science, Mechanical Engineering

GPA: 3.85

Minor: Environment and Sustainability

Selected Coursework: Differential Equations • Thermodynamics • Statics and Mechanics of Solids • Python • Electricity and Magnetism • *Linear Algebra* • *Dynamics* • *Mechanical Synthesis* • *Oscillations, Waves, Quantum Physics (SP2025)*

SPECIALIZED SKILLS

Technical: Python, Java, Autodesk Fusion 360, Solidworks, Microsoft Office, machine shop

Professional: Critical thinking, problem solving, communication, collaboration, leadership, time management

Language: Chinese – lived 4 years in Asia and have 11 years of Mandarin study

PROFESSIONAL EXPERIENCE

Solar Panel Reboot Subteam Member, *Cornell University Sustainable Design, Ithaca, NY*

Feb 2025 – Present

- Contributed to the design and construction of a solar simulator that emulates real-world solar conditions, aiding in the optimization of solar panel arrays through controlled irradiance testing
- Collaborated with Cornell's agrivoltaics research group to design and implement experimental solar panel testing methods, including a floating PV study at Cornell's Experimental Pond Facility
- Conducted financial and environmental analyses to evaluate the cost-effectiveness and sustainability of cooling systems, identifying viable solutions to enhance solar panel performance in high-temperature regions

Construction and Maintenance Employee, *Mike Smith Contracting, McVeytown, PA*

May-Aug 2024

- Assisted with house flipping projects, gaining hands-on experience in construction and project management
- Learned and performed key tasks, including laying flooring, hanging and sanding drywall, and general carpentry
- Worked closely with experienced contractors, enhancing teamwork and communication through collaboration
- Adapted to a dynamic work environment, balancing learning new skills with contributing to project success
- Demonstrated reliability and technical competence by being entrusted to complete tasks independently

Garden Center Assistant, *Inches Nursery, Moon, PA*

May-Aug 2023

- Watered, pruned and groomed plants and trees to maintain health and attractiveness
- Transplanted seedlings and young plants to promote growth and prepare plants for transfer to other locations
- Answered questions and provided information regarding plants and care to help customers make decisions
- Cultivated soil and added fertilizer, compost, and amendments as needed for optimal growth efficiency
- Organized plant sales and deliveries, also ensured accuracy and satisfaction during in-store check-outs

VOLUNTEER AND CHARITY EXPERIENCE

Service Trip – Built aqueducts to provide water access to a community in Cordillera Central, Dom. Rep.

July 2022

World Vision - Coordinated and organized a 6k Walk for Water, raising over \$3000 for clean water

Feb-May 2022

CAMPUS INVOLVEMENT AND ADDITIONAL EXPERIENCE

Lambda Chi Alpha Social Fraternity, Cornell University, *Steward and Sustainability Chair*

Aug 2023-May 2025

Hortus Forum – Undergraduate Horticulture Club, Cornell University, *Member*

Aug 2023-May 2025

Varsity Botany Club, Cornell University, *Member*

Aug 2023-May 2025

Tutor - Provided independent student tutoring services to fellow engineering students,

Aug 2023-Dec 2024

reinforcing key concepts in mechanical engineering coursework and fostering collaborative learning

ACTIVITIES/INTERESTS

Sports and fitness: Contributed to 2 varsity teams in high school for 4 years, 2 year captain for soccer

Music: Consistent piano study for 9+ years, PFMC Piano Solo Cup recipient 2019, PFMC Theory Cup recipient 2020