

## ZACHARY C. SNARR

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### EDUCATION

#### Cornell University, College of Engineering; GPA 4.1

*B.S. Candidate in Mechanical Engineering*

*Sustainable Energy Systems Minor*

*Relevant Coursework: Uncertainty Analysis, Computer Science, Differential Equations, Linear Algebra, Physics*

**Ithaca, NY**

*Anticipated Graduation May 2027*

*SAT 1550*

### EXPERIENCE

#### Voltus, Inc.

*Energy Markets Intern*

**Boston, MA**

*May 2025 - Present*

- Deliver demand response technology to clients, ensuring grid reliability and optimizing corporate clients' energy usage
- Develop scripts in Python and SQL to automate internal company operations, saving ~2 hours weekly of staff time
- Clean and analyze comprehensive datasets to quantify client risk in utility programs, maximizing revenue-to-risk ratio
- Model predicted client performance over next fiscal year to determine optimal pricing models in utility programs

#### Harvard University/National Science Foundation – REU Cohort

*Summer Research Intern*

**Cambridge, MA**

*Jun 2024 - Aug 2024*

- Collaborated on atmospheric research under Prof. Wordsworth to detect evidence of biosignatures and snowball climate
- Co-authored publication on Snowball Earth Climates during the Cryogenian period based on atmospheric composition
- Formulated Python model for KINETICS software to automate O-isotope integration, saving 5+ weeks of manual input
- Discovered direct correlation between building depth and particulate matter levels (PM<sub>>0.3</sub>) in atmosphere using HAZEL

#### Cornell Consulting Group

*Analyst*

**Ithaca, NY**

*Sep 2024 - Present*

- Selected for undergraduate consulting organization working with startups to S&P 500 companies across many industries
- Analyzed data from 80+ regions to quantitatively identify 5 optimal pilot locations for EdTech client's new market entry
- Delivered demand and price optimization study for subscription client, uncovering 15% growth capacity in market niche

#### Aquaculture – Engineering Project Team

*Apparatus Engineer*

**Ithaca, NY**

*Sep 2023 - May 2024*

- Developed automated aquaculture feeding system with machine learning algorithm to reduce nitrogen pollution by 80%
- Constructed modular feeding apparatus to dispense fish food based on visual cues recognized by a learning algorithm
- Presented findings and progress at quarterly conferences to hundreds of students, fostering collaboration amongst teams

#### Whitesides Research Group

*Engineering Researcher*

**Cambridge, MA**

*May 2022 - Aug 2023*

- Designed lab's first thread-based ion-selective electrodes (ISE) to test for environmental toxins in water and electrolytes
- Innovated upon commercially available ISEs to reduce production costs by over 300% and merge ISEs and soft robotics
- Gathered electrochemical data with PalmSens potentiometric software and presented on Microsoft Excel for publication

### LEADERSHIP

#### U.S. Army Reserve and Cornell Army ROTC – Excelsior Battalion

*Guaranteed Reserve Forces Duty Scholar*

**Nichols/Ithaca, NY**

*Aug 2023 - Present*

- Serving as E-5 in an Army Reserve logistics unit under Guaranteed Reserve Forces Duty program; Minuteman Scholar
- Commit 2-3 hours each morning to leadership and tactical training, and at least one weekend a month to reserve drill
- Orchestrated unit-wide dining-out event for over 100 soldiers and family members; reduced annual expenditures by 7%
- Overhauled unit's physical training program to improve physical fitness, reflected by 9% increase in unit's ACFT scores

#### Project Level the Field, INC. – Cornell Chapter

*Director of Finances*

**Rochester/Ithaca, NY**

*May 2024 - Present*

- Consult high school students from all backgrounds with free mentorship resources for the college application process
- Manage \$30k+ annual budget distribution across chapters with Intuit QuickBooks; supervise Cornell chapter finances
- Expanded outreach by aiding the launch of a new chapter, recruiting 13 mentors, and supporting over 30 new mentees

#### Scouts BSA

*Eagle Scout*

**Los Altos, CA/Concord, MA**

*Feb 2013 - May 2020*

- Earned 39 merit badges; 3 palms; member of Order of the Arrow, an honor society for those who exemplify Scout Oath
- Procured and organized donations of soccer gear from hundreds of community members for a local Boys and Girls Club

### SKILLS and INTERESTS

- Skills: Python, Microsoft Excel, Microsoft PowerPoint, Regression Analysis, QuickBooks, KINETICS, MATLAB
- Interests: Soccer, NBA, Premier League, Surfing, Camping, Classic Rock, Cliff Jumping, Connect 4, Hearts, In-N-Out