Sushmit Dutta

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EDUCATION

OLIN COLLEGE OF ENGINEERING | Massachusetts, US — May 2024
Bachelor of Science in Mechanical Engineering *(GPA: 4.0)*
- Recipient of merit $100,000 scholarship

Relevant Coursework: *Mechanics of Solids & Structures, Linear Algebra & Machine Learning Algorithms, Principles of Systems Engineering, Mechanical Dynamics, Software Design*

SKILLS

- **Machine Shop** : CNC, Mill, Lathe, MIG & TIG Welding, 3D Printing, Laser Cutting
- **Applications** : SolidWorks, ANSYS, Fusion360, KiCad, OpenRocket, RASAero, Adobe Creative Cloud
- **Software** : MATLAB, Python, Java, JavaScript, React, Gatsby, HTML, Shell, Git

EXPERIENCE

ALP TECHNOLOGIES | Massachusetts, US — Nov 2021 – Present
Mechanical Engineer (Part-Time)
- Prototyped and manufactured a solar power unit using recycled Li-ion batteries with self-designed PCBs
- Debugged Raspberry PI used to collect data and stabilize battery cells through user testing
- Showcased company at a climate tech summit (Greentown Labs summit in Boston)

AI ROBOTICS | Singapore, SG — May 2021 – Oct 2021
Systems Engineer (Intern)
- Designed tests for the deterministic algorithm used by the on-board sensors for 1,500 simulations
- Led a marketing campaign (website development, promotional video) to attract investors
- Co-ordinated with accelerators for Seed A funding to build test facility and manufacture initial prototypes

ACCENTURE | Singapore, SG — Jun 2021 – Aug 2021
Sustainability Consultant (Intern)
- Reported on Environmental, Social, and Corporate Governance (ESG) outlooks of banks in South East Asia
- Developed an ESG comparison metric to rank companies in their respective fields
- Presented research at the Strategic Point conference in Asia to represent Accenture

OLIN ROCKETRY | Massachusetts, US — Sep 2020 - Present
Recovery Team Lead & Systems Engineer
- Built a 10,000ft M class rocket to compete at the Intercollegiate Rocket Engineering Competition
- Research & developed the recovery system with regards to the safety and reliability requirements of the team
- Conducted Finite Element Analysis on the system using SolidWorks and ANSYS to ascertain flight safety

PROJECTS

- **Redox Battery Research** : Researched with 2 PhD candidates on methods of extending the lifespan of redox lead-acid batteries used in developing countries at the National University of Singapore
- **Batch-Reverse Osmosis Research** : Prototyped and manufactured a reverse osmosis system on a MIT research team to compete in the 'More Water' competition by NASA
- **Smart Mirror using JavaScript** : Designed and created a smart mirror that can be controlled through voice modules and displays modules such as time, weather, calendar, and news using JavaScript, and Python