Sushmit Dutta

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EXPERIENCE

ALP TECHNOLOGIES | Massachusetts, US — Aug 2021 – Sep 2022

Mechanical Engineer (3 months)

- Prototyped and manufactured solar power unit using recycled Li-ion batteries with self-designed PCBs
- Constructed micro-grid system to conduct tests and showcase product

Software Engineer (5 months)

- Designed docker based architecture for backend server to collect data using Socket IO in C++
- Created frontend website to control power units using React, JavaScript, and HTML
- Built custom Ubuntu ISO for deployment which helped cut down on labor hours by 40%

Systems Engineer (4 months)

- Led conversations to scale manufacturing by codesigning with in-house engineers and factories
- Showcased company at climate tech summit (Greentown Labs summit in Boston)
- Piloted the lean methodology to turn company prototype into product through two week sprints

AI ROBOTICS | Singapore, SG — May 2021 – Oct 2021

Systems Engineering Intern

- Designed tests for deterministic algorithm used by the on-board sensors for 1,500 simulations
- Led 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 Consulting Intern

- Reported on Environmental, Social, and Corporate Governance (ESG) outlooks of banks in South East Asia
- Developed ESG comparison metric to rank companies in their respective fields
- Presented research at Strategic Point conference in Asia to represent Accenture

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, Docker, Python, Java, JavaScript, React, Gatsby, HTML, Shell, Git, C++

EDUCATION

OLIN COLLEGE OF ENGINEERING | Massachusetts, US — May 2024

Bachelor of Science in Sustainable Systems Engineering *(GPA: 4.0)*

- Recipient of merit $100,000 scholarship

Relevant Coursework: *Principles of Systems Engineering, Mechanical Dynamics, Software Design*

PROJECTS

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