

# Sushmit Dutta

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## EXPERIENCE

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### ALP TECHNOLOGIES | Massachusetts, US

Aug 2021 – Sep 2022

#### Mechanical Engineer (3 months)

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

#### Software Engineer (5 months)

- Designed docker based architecture for the 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 a climate tech summit (Greentown Labs summit in Boston)
- Piloted the lean methodology to turn company prototype into a product through two week sprints

### AI ROBOTICS | Singapore, SG

May 2021 – Oct 2021

#### Systems Engineering 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 Consulting 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

## SKILLS

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- **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

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### 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: Principles of Systems Engineering, Mechanical Dynamics, Software Design*

## PROJECTS

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- **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