

# SAHIL T CHAUDHARY

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## EDUCATION

### Carnegie Mellon University

Master of Science in Mechanical Engineering – Applied Advanced Study

Pittsburgh, PA

December 2024

### Vellore Institute of Technology

Bachelor of Technology in Mechanical Engineering

Vellore, India

August 2022

- GPA: 9.05/10

## SKILLS

- Programming Language:** Python | C++ | MATLAB | R
- Tools/Technology:** SolidWorks | Ansys | Fusion 360 | CoppeliaSim (V-REP) | Raspberry Pi | Arduino Uno | Git

## PROFESSIONAL EXPERIENCE

### ArcelorMittal Nippon Steel India Limited

Hazira, Gujarat, India

Graduate Engineer Trainee – Corex Operations

June 2022 – March 2023

- Ensured the smooth running of different processes such as conveyors, skip charging, coal blending, coal drying, slag granulation plant, and machinery involved in all the areas within Material Handling and the Corex Process
- Assisted and collaborated with Field Engineers to resolve problems such as malfunctioning, errors or issues with the equipment and machinery, ensuring safety, and productivity of the Plant

### Maruti Suzuki India Limited

Gurgaon, Haryana, India

Intern – Energy Control Department

July 2021 – September 2021

- Trained in Energy Auditing and Management, and thereby prepared a report on the same
- Learnt evaluating the performance of Boilers, improving their efficiency, and identifying energy conservation opportunities

## ACADEMIC PROJECTS

### Re-sizeable Autonomous Cleaning Robot

January 2022 – April 2022

Vellore Institute of Technology

Vellore, India

- Designed and developed a Cleaning Robot that can re-size itself (between 30 cm and 50 cm length), using Fusion 360
- Developed a physical prototype using Raspberry Pi 4 and conducted a simulation study using SolidWorks and V-REP
- Tech Stack:** Fusion 360, SolidWorks, Ansys, CoppeliaSim (V-REP), Raspberry Pi, Python [\[GitHub\]](#)

### Quadruped Robot

June 2021 – October 2021

Vellore Institute of Technology

Vellore, India

- Designed a Quadruped Robot with SolidWorks, by redesigning the legs with RRR configuration to increase total workspace
- Obtained the stable workspace of the robot with the redesigned legs using MATLAB
- Tech Stack:** SolidWorks, MATLAB, PyBullet, Python [\[GitHub\]](#)

### Prosthetic Arm

January 2021 – April 2021

Vellore Institute of Technology

Vellore, India

- Fabricated a cost-effective Prosthetic Arm using SolidWorks, Arduino Uno and 3-D printing (using ABS)
- Reduced the material cost of the Prosthetic Arm by 18% using Topology Optimization
- Tech Stack:** SolidWorks, Arduino Uno, C++, Additive Manufacturing [\[GitHub\]](#)

### Compact Foldable Treadmill

August 2020 – November 2020

Vellore Institute of Technology

Vellore, India

- Created an easy to store, compact, and foldable Treadmill using SolidWorks
- Conducted Stress Analysis with Ansys, to determine the Fatigue Life, and got a Factor of Safety of 4
- Tech Stack:** SolidWorks, Ansys [\[GitHub\]](#)

## EXTRACURRICULAR ACTIVITIES

- Partaken in VIT 2K20 Marathon (10km) as a part of Riviera 2k20 (Cultural Fest), themed-Run for Cancer, 2020
- Selected as a Cadet in VIT-NCC (National Cadet Corps) for Republic Day and Independence Day Parade Contingent, 2019
- Received SolidWorks Associate (CSWA) Certification from Dassault Systemes, October 2019
- Joined as a Core Member of SAE-VIT student chapter, and hosted Tech Talks, gathered sponsorships for Automobile workshop, IDRL and Aerodominator events, and obtained components for Aeromodelling Workshop by SAE-VIT, 2019