

Aditya Abishai Pedapati

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EDUCATION

NEW YORK UNIVERSITY

MS IN MECHATRONICS AND
ROBOTICS

May 2025 | New York, US

VASAVI COLLEGE OF ENGINEER- ING

BE IN MECHANICAL ENGINEERING
WITH DISTINCTION

May 2023 | Hyderabad, India

LINKS

Github:// [abixxviii](#)

LinkedIn:// [Abishai A](#)

Website:// [abixxviii.github.io](#)

COURSEWORK

GRADUATE

Mechatronics

Mathematics for Robotics

Foundations of Robotics

Advanced Mechatronics

Robotic Gait and Manipulation

Entrepreneurship

(Notable Achievements)

Recipient of merit based scholarship

TECHNICAL SKILLS

PROGRAMMING LANGUAGES

C++ • C • Python • MATLAB • Shell
scripting

ROBOTICS AND FRAMEWORKS

ROS (Robot Operating System) • Gazebo

• CoppeliaSim • MuJoCo

SIMULATION AND MODELING

SolidWorks • Siemens NX • Fusion 360 •

CATIA • Ansys Fluent • Unity3D

MACHINE LEARNING

PyTorch • OpenCV • JAX • OpenAI Gym

VERSION CONTROL

Git

MICROCONTROLLERS

Arduino • Espressif ESP32 • Raspberry Pi

OPERATING SYSTEMS

Linux • Mac OS • Windows

OTHER TOOLS

LaTeX • Microsoft Office Suite • Adobe

Creative Suite

MANUFACTURING

CNC Machining • Metalworking • Rapid

Prototyping • Welding • Laser Cutting

EXPERIENCE

COOPERSURGICAL, INC | R&D AND NEW PRODUCT DEVELOPMENT

INTERN

May 2024 - August 2024 | Trumbull, CT

- Juggled numerous projects delivering innovative solutions and wearing many hats, while leading a cross-functional team.
- Developed a fully-functional Automated ICSI Micromanipulator with submicron precision, minimal backlash, and manual override capability, to be showcased at an upcoming Healthcare Summit.
- Gave a facelift to the fan and temperature modules for the Advanced Micromanipulator, optimizing performance, ease of service, and functionality, while minimizing manufacturing cost.

KIA INDIA PVT LTD | PROJECT INTERN

Feb 2023 - May 2023 | Ananthapur, India

- Played a key role in KIA Carens redesign, emphasizing intricate mechanical assemblies with GD&T application and optimizing the BIW (Body in White) and the weatherstrip.
- Collaborated with industry-leading engineers, achieving a defect per unit (DPU) reduction to less than one.
- Analyzed vehicle defects, implemented Root Cause Analysis (RCA), and drafted effective defect reduction strategies.

RE SUSTAINABILITY | ENGINEERING INTERN

Jul 2022 - Aug 2022 | Hyderabad, India

- Spearheaded initiatives at the largest waste-to-energy plant in South India, overseeing the production of 28 MW of RDF from 1,200 tons of daily waste.
- Innovatively implemented drone technology to efficiently spray 75 liters of liquid odorite, effectively mitigating unpleasant odors.

IIT MADRAS RESEARCH PARK | PROJECT INTERN

April 2022 - July 2022 | Chennai, India

- Engineered a robot mecanum wheels, a 6 DOF robot configuration, and enhanced payload capacity.

PROJECTS

STAIR TRAVERSAL AND EXPLORATION PLATFORM Jan 2024 | NY, US

Currently collaborating with a team of hard-headed engineers to build a 10 DOF Biped robot(Mark-V).

MAZE SOLVING DEVICE May 2024 | NY, US

Engineered a maze-solving device using Raspberry Pi 4B and Arduino Uno, leveraging OpenCV for image processing and breadth-first search algorithms for navigation, with servo-controlled movement for precise ball guidance.

AUTOMATIC PACKAGE SEPERATOR Feb 2024 | NY, US

Developed an Automatic Package Separator system using Arduino technology, incorporating a 1D/2D barcode scanner, servo and DC motors, ultrasonic sensor, and LCD display to enhance address-based package segregation efficiency..

SONARDUINO Oct 2023 - Nov 2023 | NY, US

Developed a **360 degree radar system** for object detection. Enhanced the capabilities of locomotive robots by providing SonarDuino which helps in object detection.