

SUMMARY

Mechanical Engineering graduate student with Internship experience in Manufacturing, Automotives, Design and Programming. Worked on a lot of projects both Academic and Personal, always curious to increase my skill set. I am currently seeking a Full-time opportunity.

EDUCATION

Master of Science, Mechanical and Aerospace Engineering	Jan 2021 – Jan 2023
Arizona State University, Tempe, USA	CGPA 3.71/4.00
Coursework: Robotics, Design Optimization, FEA, Machine Learning	
Bachelor of Technology, Mechanical Engineering	Aug 2016 – May 2020
SASTRA Deemed University, Tamil Nadu, India	CGPA 3.38/4.00
Coursework: Manufacturing Technology, Industrial Robotics	

TECHNICAL SKILLS

Design and Simulation Tools: Auto-CAD, Fusion 360, SOLIDWORKS, CREO, CATIA, ANSYS, Abaqus
Programming: Python (NumPy, Pandas, Selenium, Open CV, Flask, TensorFlow etc.), MATLAB, Arduino IDE, PLC, C, C++, HTML, CSS, JavaScript, Swift, Azure.
Project Management: Excel, PowerPoint, Word, MS Project, Adobe Illustrator, Vectornator etc.
Tools, Frameworks and OS: Windows, Kali-Linux, MacOS, Raspbian, Ubuntu, Parrot OS, Fiddler, Wireshark, GIT, GitHub, Cura, Jupyter Notebook, Google Colab, Visual Studio Code etc.

WORK EXPERIENCE

Technician Trainee, Royal Enfield Workshop, Andhra Pradesh, India	May 2019 - June 2019
<ul style="list-style-type: none">I was honored to hold the role where I excelled in analyzing and masterfully resolving complex issues related to the engine, clutch, suspension, transmission, emission, front-forks, and fine-tuning vehicles with incredible precision and expertise.	
Trainee, Shanmugha Precision forge (SPF), Tamil Nadu, India	June 2018 - April 2019
<ul style="list-style-type: none">I was a true master of the trade, gaining hands-on expertise with state-of-the-art CNC, Lathes, Milling Machines, Radial Drilling Machines, Stamping, Casting, and Engineering Drawing.I acquired an unparalleled understanding of process prediction and was able to demonstrate exceptional skills in reducing lead time and generating a flawless process plan for any product.My unwavering commitment to quality control and detecting faulty products with ease using various gauges, CMM, and Profile Projectors earned me a reputation as a true expert in the field.	

RESEARCH EXPERIENCE

Research Assistant, Arizona State University, Tempe	April 2021 – December 2022
<ul style="list-style-type: none">Created an algorithm for extraction of fitting parameters for stamped components of different depths and material properties to train the machine learning algorithm to obtain the results without the need for Finite Element Analysis.Developed programs to find the least squares fit of the lines and arcs in 3D space using screw coordinates. Also, contributed for Research Publications and published a thesis.Written codes to find the Minimum cylindrical fit and finding inflations in data sets. Handled huge data using NumPy and pandas and generated an excel sheet with all the outputs.	

ACADEMIC/SELF PROJECTS

Additive Manufacturing Projects: <ul style="list-style-type: none">Designed and built a 2.5D Mechanical plotter from E-waste under 50 dollars.Upgraded a CR-10 3D printer to be able to control from any device with network access.Modeled, Sliced and 3D printed components whenever and wherever necessary.	
Building, Programming, and piloting of Drones: <ul style="list-style-type: none">MATLAB simulation for decentralized drone swarm design for Precision AgricultureBuilt and studied First Person view (FPV) Drones.Developed skills of soldering, circuit building, Troubleshooting etc.	
Programming Projects: <ul style="list-style-type: none">Created a Machine learning model to predict traffic signs in real time.Wrote a code to send messages to a list of people participating in an event for the cultural event.Web browser automation using selenium for different instances.Used OpenCV to capture the image of user on pc startup.Created webpages, widgets using Flask, HTML, CSS, JavaScript, bootstrap, and SQLAlchemy.	
Other Projects: <ul style="list-style-type: none">Coded and built a hand gesture-controlled vehicle.Programmed a WS2812B Led Strip to change with the sound and display of the user screen.Written a Snake game program with Led Strip which can be controlled by scanning a QR Code.Made a Musical Instrument with old PS2 keyboard. Etc.	