Suhani Kolhatkar

Undergrad Mechanical Engineering Student at COEP Tech University
Co-founder at ValidusEduTech | Data Science Student at IIT Madras
Former Research Intern at Drones and Autonomous Systems Labs , UNLV

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🐙 https://github.com/SuhaniKolhatkar   in https://www.linkedin.com/in/suhani-kolhatkar/

Education

B Tech Mechanical Engineering
COEP Technological University
📅 2023 - Present
- GPA : 8.9

BS Degree Data Science
Indian Institute of Technology Madras
📅 2023 - Present
- GPA : 7.5

Secondary Education
Garware college of science
📅 2021 - 2023
- 98.798 Percentile

Primary Education
Abhinav Vidyalaya
📅 2011 - 2021
- 99.2 %
- Best Student Award

Projects

Exploratory Data Analysis
📅 Dec 2024 - Jan 2025

Cable Driven Parallel Robot
📅 July 2024 - Sep 2024

Developing an Eigen Value Calculator
📅 Jun 2023 - July 2023

Website Development
📅 May 2023 - Jun 2023

Software Skills

- Fusion 360
- AutoCad
- OrcaSlicer
- Ansys
- Inkscape
- SciLab/MatLab
- Protegé
- FreeCAD

Programming Languages

- Python : owlready2, plotly, pandas
- C++
- HTML, CSS, JS
- ROS

Invited Talks

- **"Generative Art in p5.js "**
  August `22, ViMEET, Khalapur
- **"Hobbies and Academics "**
  July `23, Garware College, Pune
- **"Explore and Exploit:Briefing"**
  May `25, Arcticturn Foundation , Pune
- **"Effective LinkedIn engagement"**
  July `25, Online for UNLV interns

Extra Curricular

- **Nurturing Plants :** Planted, nurtured more than 150 plants and created terrace garden
- **Classical Kathak Practitioner :** Completed Visharad Pratham with First Class

Profile

As a mechanical engineering student with an interest in data science, I enjoy learning and working on technical projects. At the same time, I find joy in creative and calming pursuits like Kathak, where I've completed my Visharad, and gardening, which keeps me connected to nature. These passions reflect who I am—a mix of curiosity, creativity, and a love for learning new technologies. I deliver invited talks on topics varying from Technology to career enhancement.

Work Experience

Deepstambha Charitable Trust
Intern   📅 Sep 2024 - Oct 2024, 📍 Pune, India

- Led a community-driven environmental initiative in partnership with Pune Municipal Corporation, transforming religious floral waste into organic manure through systematic composting processes

Drones and Autonomous Systems Lab, UNLV
Research Intern   📅 July 2024 - Sep 2024, 📍 LV, Nevada, US

- Worked on Cable Driven Parallel Robots (CDPR) :
  - Designed and implemented a Cable-Driven Parallel Robot (CDPR) system, incorporating Dynamixel AX12 motors, Raspberry Pi 4B controller, and INA260 power sensors for precise motion control
  - Developed control algorithms using ROS (Robot Operating System) and Python, implementing kinematic calculations and static analysis for accurate end-effector positioning
  - Engineered a mechanical projectile launcher with optimized spring configurations (k=11200 N/m), including dynamic analysis and force calculations for precise trajectory control
  - Created data visualization interfaces for path tracking using SciLab
- Controlling and flying drones
- Operating Laser cutting machine and 3D printer
- Designed and Curated License Plate Cover in acrylic using laser cutting

ValidusEduTech
Co-Founder and Community Director   📅 June 2023 - Present, 📍 Pune , Maharashtra

- Building profiles of Students through Students' Katta :
  - Organized and curated events for students on topics other than academics. Led 12 Students' Katta events. Responsible for deciding session agendas and managing prerequisites to ensure smooth event operations.
  - Developed strong managerial skills by effectively managing a team of individuals and coordinating their efforts towards common objectives.
  - Demonstrated communication and oratory skills through delivering presentations, facilitating discussions, and engaging with community members.
  - Demonstrated financial management skills by overseeing budget allocation and expenditure for community events.
  - Expanded personal and professional networks through active engagement with community members, guest speakers, and industry professionals.
- Building profiles of students through Sunday Side projects :
  - One of the initiatives of ValidusEduTech in which I led cohort of students for the web development project
  - Led project based on Exploratory Data Analysis where we studied Study patterns of the students who take classes in ValidusEduTech

Validus Analytics LLP
Intern   📅 June 2023 - July 2023, 📍 Pune , Maharashtra

- Acquired foundational knowledge in machine learning theory during internship tenure. Familiarized myself with ml5.js for machine learning implementation and explored image classification techniques using ml5.js and p5.js, incorporating pre-trained models like MobileNet.
- Gained practical experience with essential Python libraries including NumPy, Matplotlib, Plotly, and Pandas, enabling data analysis, visualization, and manipulation tasks.
- Introduced to Streamlit for building interactive web applications and explored its functionalities.
- Gained exposure to Document Object Model (DOM) and utilized GoJS to create a raw interface for data visualization purposes.
- Initiated learning of jQuery for front-end development, expanding my skills in web development technologies.