

DEV DALMIA

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EDUCATION

University of Southern California - Viterbi School of Engineering and Marshall School of Business Los Angeles, California
Bachelor of Science (Aerospace & Mechanical Engineering) and Minor in Entrepreneurship August 2023-Present

- Statics, Dynamics, Materials, Thermodynamics, Systems, Mechops, Fluids

WORK EXPERIENCES

Cerebras AI Sunnyvale, California
Hardware Design & Engineering Intern May 2026-Present

- Working on the next generation of wafer scale, ultra-fast AI inference hardware.

Tata Advanced Systems Limited Bangalore, India
Concept Design Intern May 2025-July 2025

- Led a redesign of the in-house aircraft concept sizing platform, developing 1,500+ lines of Python to integrate aerodynamic models with structural and stability constraints. Improved iteration speed by 63% and 2x the parameters for aircraft prototypes.
- Built, instrumented, and flight-tested reconnaissance UAV prototypes across six wing configurations, installing sensors, setting up wiring harness, and designing test workflows that generated 30+ data sets over 11 flight hours to validate simulation outputs.

Drona Aviation Mumbai, India
Engineering Intern April 2022-August 2022

- Designed their upcoming agricultural drone. Deployed software upgrades using Python, Mavlink and C+ to the Pluto platform.

PROJECTS

USC Rocket Propulsion Laboratory Los Angeles, California
DAQ and Infrastructure Engineer September 2023-Present

- Working on data acquisition and validation, conducting hydrostatic tests, building a PID controller and coupon thermal testing.
- Evaluated 16 options for new live-stream cameras, contributed to design of front bay and stress testing of structure and cameras.

California Institute of Technology Pasadena, California
Research Assistant December 2024-January 2026

- Designing and building onboard compute electronics and a vision-mapping pipeline for autonomous UAVs, integrating a custom compute board, camera modules, GPS, and IMU hardware to enable real-time terrain and fire-layer analysis.
- Simulated and tested autonomous flight behavior using DJI PSDK and Pixhawk. Prototyped and validated sensor mounting hardware in CAD, conducting thermal and vibration checks to ensure compute stability over 30+ minutes of operation.

Thesis at USC SEP Los Angeles, California
Co-founder and Developer January 2025-June 2025

- Learnt web development to build Thesis, an AI-powered collaborative research tool to help labs improve research review efficiency by 350% and allow seamless sharing of findings. Had 4 labs beta testing the product with 20+ researchers.

Indian Institute of Technology - Bombay Mumbai, India
Lab Assistant August 2022-November 2022

- Studied linear flow concepts and single-handedly conceived a series of videos, used to train 300+ students.

Team Atlas Mumbai, India
Founder & Team Mentor January 2021-December 2023

- Captained and mentored a group of 12 students' team to participate in the First Tech Challenge, MakeX Challenger and VJTI Technovanza. Our team placed 3rd nationally in FTC, semi-finalist's in Technovanza and 2nd in MakeX.

Masterchef4Many, masterchef4many.org Mumbai, India
Founder January 2018-August 2024

- Organized 400+ families to distribute 365,000 meals for 5000 needy children. Expanded to restaurant drives and festive food celebrations. Received the Diana Award. Project has had over \$450,000+ of impact.

SKILLS

Software: Python, MATLAB, CAD (NX, CATIA, SolidWorks), FEA, GD&T, DFM, Betaflight, ArduPilot, SQL, Jira, Git, Altium
Lab: Waveform Generator, Oscilloscope, VBench, Arduino, Multimeter, 3D Printing, Laser cutting, Power Tools, Woodworking
Other: Figma, Framer, Microsoft Office, Gantt, Photoshop, Photography, UI/UX Design, Project Management, Test Jig Desing