

NANDINI GARG

Claremont, CA | (840) 205-7276 | nandinigarg2002@gmail.com | UAE Golden Visa | www.linkedin.com/in/nandini-garg/

EDUCATION

Harvey Mudd College

Bachelor of Science in Engineering

Concentration: Electrical Engineering and Economics

Relevant Coursework: Semiconductors, Electronics & Computer Engineering, Adv. Systems I & II, Magnetic Circuits & Devices

Claremont, CA

December 2024

SKILLS & COURSEWORK

Languages: Matlab, Python, C++ , Assembly Language, SystemVerilog, HTML5, Arduino

Softwares & Tools: FPGA/ASIC Design, Altium Design, ModelSim, Oscilloscope, Multimeters, Soldering, Simulink, SolidWorks/CATIA, LabView, Machine Shop Tools, 3D Printer, Power BI, ArduPilot, GNU Radio

WORK EXPERIENCE

Amazon Prime Air

Aug 2024 – Present

Team Lead and Systems Student Engineer

Remote, USA

- Implementing visual marker-based tracking solutions, reducing pre-flight hover delays, streamlining drone deployment.
- Developing hardware-software integrated localization systems to mitigate multipath interference, cutting the minimum launch distance between drones and buildings.
- Driving research and prototyping of six advanced sensing technologies, producing a trade study to improve drone positioning accuracy through rigorous hardware, component, and system-level testing.

Doosan Bobcat (Machine Industry Company)

Jan – May 2024

Autonomous Systems Student Engineer

Remote, US

- Simulated wheel velocities on MATLAB to improve shortest path accuracy by 30% optimizing control algorithms.
- Validated hardware functionality and efficiency for riderless automation systems, achieving over 80% waypoint accuracy by implementing Dubins curve algorithms.
- Replicated hardware and software solution on a more advanced mower, preparing it for demonstration within 48 hours, ensuring seamless system integration.

MIT Lincoln Laboratory

Aug 2021 – May 2022

Electrical Student Engineer

Remote, USA

- Developed FPGA-based control systems for drones equipped with radio transmitters to improve radio telescope calibration speed by 25%.
- Optimized power electronic hardware for autonomous trainer drones, focusing on key metrics such as size, weight, detection range, and cost-efficiency to enhance operational efficiency.
- Reduced hardware costs by ~\$1000 using lean manufacturing principles, boosting efficiency and scalable drone deployment.

Ernst & Young

May –Sept 2023

Technology Consulting Associate Intern

Dubai, UAE

- Led market research on financial viability of AI-powered robotic advisor systems for ultra-high-net-worth clients.
- Authored a strategic proposal to senior and junior partners, showcasing cutting-edge AI solutions projected to improve client engagement by 30% based on survey data.
- Transformed 4 products into high-value solutions by identifying ways to integrate the products into medium-sized businesses and leveraging artificial intelligence to increase profitability.

Visa (Credit Card and Service Corporation)

May – Aug 2022

Technical Product Manager Intern

Austin, Texas, USA

- Proposed 15 products during the Annual Operating Plan, a department-wide strategic roadmap meeting, securing \$700,000 in funding and the allocation of 133 servers to enhance infrastructure scalability.
- Resolved connectivity issues, reducing network latency between data centers through WAN Emulator from 12 hours to 8 hours.

LEADERSHIP EXPERIENCE

Society of Women Engineers

Aug 2022 – Aug 2024

Head of Events, Senior Advisor and Mentor

Claremont, CA

- Mentored 3 prospective engineering students per year, providing guidance and fostering their academic growth in the field.
- Orchestrated the annual WEST Conference, a one-day event empowering 50 high school girls to explore engineering through hands-on workshops, inspiring future engineers.

South Asian Student Association

Aug 2019 – Present

Vice President and Member

Claremont, CA

- Drive fundraising and optimize \$10,000 annual budget to sponsor various South Asian cultural events with 1000+ attendees.