OMPRAKASH INDLA

+1 (205) 873-7963 | Birmingham, AL, USA | LinkedIn: Omprakash-indla | Email: oindla@uab.edu

Objective

Graduate student in Electrical and Computer Engineering with expertise in hardware design, embedded systems, and FPGA development, seeking a Hardware Engineering Internship to gain hands-on experience in system integration and validation.

Education

Master of Science in Electrical and Computer Engineering, University of Alabama at Birmingham — Expected May 2026
Relevant Coursework:, Embedded Systems Design, Digital System Design, Machine Learning, Artificial Intelligence, Control Systems, Computer Architecture, FPGA Design, Signal Processing, Software Engineering, Data Structures & Algorithms
Bachelor of Engineering in Electronics and Telecommunication, Symbiosis Institute of Technology — 2019–2023

Technical Skills

Hardware Design: Digital & Analog Circuits, PCB Layout (Altium, KiCad), Sensors & Actuators, Signal Integrity, Hardware Debugging
Embedded Systems: Embedded C/C++, ARM Architecture, STM32, Arduino, Raspberry Pi, RTOS, SPI/I2C/UART, Firmware Development
AI / ML: Python, TensorFlow, PyTorch, Scikit-learn, TinyML, Computer Vision (OpenCV)
Software & Tools: MATLAB/Simulink, Verilog/VHDL, Vivado, Quartus, LTspice, Git/GitHub, Jupyter Notebooks
Testing & Simulation: Oscilloscope, Logic Analyzer, Multimeter, NI LabVIEW, HIL Testing, System Validation
Operating Systems: Linux, Embedded Linux, macOS, Windows

Experience

Hardware Engineer – Engineering Voyager — Marriott International (Jul 2023 – May 2024)
- Designed, inspected, and maintained electronic systems ensuring reliability and safety compliance.
- Calibrated control systems and sensor-based hardware for HVAC automation, reducing energy consumption.
- Conducted hardware diagnostics and root-cause analysis improving system uptime and efficiency.
- Created documentation and preventive-maintenance workflows for predictive system monitoring.

Software Engineer Intern — GTT Communications (Jan 2023 – Jun 2023)
- Developed Python automation scripts and REST API integrations improving network-monitoring efficiency by 20%.
- Supported hardware–software interface testing and troubleshooting of embedded communication modules.
- Validated firmware updates across multi-vendor platforms with senior engineers.

Graphic Designer – Student Media (Kaleidoscope) — University of Alabama at Birmingham (Aug 2024 – Present)
- Designed digital and print assets for campaigns and publications using Adobe Creative Suite and Figma.
- Collaborated with editors to maintain brand consistency and visual cohesion across all media.

Projects

• Smart Drone for Precision Farming – Designed AI-enabled drone using embedded controllers, GPS, and TensorFlow for real-time crop monitoring.
• IoT Smart Energy Monitor – Built ESP32-based power-tracking system with PCB design and MQTT cloud integration.

• EEG Epilepsy Detection – Applied EMD and CNN models in MATLAB/Python achieving 95% classification accuracy.
• Fixlytiq SaaS Platform – Developed full-stack repair management app using React Native, Node.js, and Supabase.

Extracurricular Activities

• Graphic Design Editor – Kaleidoscope Student Media: Led design for UAB digital campaigns and print media.
• Tech & Innovation Club: Developed IoT and AI prototypes in inter-university hackathons.
• Volunteer – UAB Engineering Expo: Mentored students on hardware presentation and system demonstration.

Leadership & Achievements

• Directed media teams at UAB Student Media, increasing engagement by 40%.
• Led hardware optimization initiatives at Marriott International to improve system efficiency.
• Top 5 Finalist – UAB Tech Innovation Hackathon for IoT project (2023).
• Outstanding Student Media Contributor Award (2024) – Recognized for creative excellence in multimedia design.