Srivibhu Yerneni

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EDUCATION

Northeastern University, Boston, MA ***May 2028***
Candidate for Bachelor of Science in Electrical and Computer Engineering *GPA: 3.50*
Relevant Coursework: Quantum Engineering, Circuits and Signals, Electronics, Digital Design, Embedded Design
Activities: SEDS, Resident Student Association, Ultimate Frisbee

SKILLS

Software: Java, Python, C++, Solidworks, Onshape, Autocad, KiCad, Git, Docker
Hardware: Soldering, Oscilloscope, PCB Design, 3D Printing, Arduino

PROFESSIONAL EXPERIENCE

Bendable Electronics and Sustainable Technologies Lab, Northeastern University ***Boston, Massachusetts***
Undergraduate Research Assistant *Dec 2025 - Present*

- Develop machine learning models to optimize nanofabrication processes for flexible electronic devices, reducing fabrication defects and improving device performance metrics across multiple sensor prototypes.
- Design experiments on flexible electronic systems, analyzing material properties and fabrication parameters to inform data-driven process improvements and validate machine learning predictions against experimental results.

Northeastern University ***Boston, Massachusetts***
Teaching Assistant - EECE 2160 Embedded Design *Dec 2025 - Present*

- Support 100+ students in FPGA-based system design and embedded programming through weekly lab sessions, office hours, and one-on-one technical troubleshooting to reinforce core concepts in hardware-software integration.
- Grade labs, homework assignments, and exams while ensuring consistent evaluation standards, providing detailed technical feedback, and hosting regular review sessions to clarify embedded systems principles.

AI Edge Institute at Ohio State University ***Columbus, Ohio***
Student Researcher *May 2025 - Aug 2025*

- Developed supervised learning models that improved classification accuracy by 22% on datasets exceeding 100k samples through systematic feature engineering and hyperparameter optimization techniques.
- Preprocessed and analyzed large-scale datasets, documented methodology and results in a 10-page technical research paper, and presented findings at program capstone to faculty and industry partners.

PROJECTS

Beacon Board ***Boston, Massachusetts***
Electrical Engineer at SEDS *Sep 2025 - Oct 2025*

- Designed a battery-powered STM32G0B1 beacon controller PCB in KiCad, integrating USB power, Li-ion charging circuitry, clean 3.3 V regulation, and robust reset/mode control for multiple external beacon modules.
- Implemented system-level power management and signal routing, clock circuitry, SWD debugging, UART/SPI interfaces, and GPIO-controlled beacon reset/mode lines, with full schematic-to-PCB workflow.

ROS2 Architecture ***Boston, Massachusetts***
Software Engineer at SEDS *Jan 2025 - Jul 2025*

- Designed a modular ROS2 architecture for Northeastern's SEDS Lunabotics rover, implementing sensing, navigation, and control nodes with standardized interfaces allowing for a fully autonomous rover.
- Integrated perception, path planning, and actuator control into a unified system that contributed to the rover placing 3rd nationally in the NASA Lunabotics style competition at the University of Iowa.

LEADERSHIP EXPERIENCE

Resident Student Association ***Boston, Massachusetts***
Assistant Vice President of Operations *Sep 2025 - Present*

- Manage funding and budgeting for all Hall Councils and ResLife programming at Northeastern, overseeing allocation, financial tracking, and operational support for residential communities across the Boston campus.
- Plan and coordinate large-scale events by securing contracts and partnerships with Boston organizations to enhance student engagement and the campus community experience for residential students.

Trade Safe ***Dallas, Texas***
Co-founder/Developer *Jul 2025 - August 2025*

- Designed and implemented a mobile application to assist investors, integrating AI-driven stock recommendation algorithms, while ensuring an accessible interface usable for users with varying financial literacy.
- Developed and trained a custom machine learning model that outperformed baseline AI models by 18% in prediction accuracy, validated through backtesting on 50,000 + historical stock records dating back over a decade.