

Lokesh Sriram

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EDUCATION

Carnegie Mellon University

Pittsburgh, PA

Masters of Science in Artificial Intelligence Engineering | GPA: 3.84/4.00

Dec 2026

Coursework: Mobile Robots, Neural Signal Processing, Deep Learning, Modern Control Theory, ML & AI for Engineers, Systems & Toolchains for AI Engineers, Sensing & Sensor

Purdue University

West Lafayette, IN

Bachelor of Science in Mechanical Engineering | GPA: 4.0/4.0 (Highest Distinction)

May 2025

Coursework: Controls I&II, Heat & Mass Transfer, Fluid Mechanics, Modern Physics, Discrete Mathematics, Real Analysis
Honors/Certificates: Minor in Mathematics, ASHRAE Scholar, H. William Bottomley scholarship

SKILLS

Controls & Sensing: Model Predictive Control (MPC), Extended Kalman Filter, LabVIEW, VICON, D-Flow

Hardware/Embedded: ESP32, Raspberry Pi, Arduino, Linux, KiCAD, LTSpice, Modbus, Ethernet, PLCs

Programming: Python, MATLAB, C++, Java, ROS2, MySQL

Simulation & CAD: Unity, Webots, Siemens NX, Fusion 360, SolidWorks, STAR-CCM+, Modelica, Dymola

Machine Learning & AI: PyTorch, Tensorflow, JAX, EdgeImpulse, Apache Spark, Kafka, pgAdmin, GCP

PROFESSIONAL EXPERIENCE

Graduate Research Assistant

NeuroMechatronics Lab, PA

Sep 2025 – Present

- Developed a CNN + temporal self-attention model for sEMG-to-joint-angle regression (22 DOF), achieving $R^2 = 0.80$ on Ninapro validation data — surpassing the published baseline of 0.73
- Built real-time hand-tracking system using MediaPipe that reconstructs 21 joint angles with average camera reprojection error < 1 px
- Designed a 64-electrode, 9 cm² neural recording grid for intra/post-operative motor-neuron monitoring with a minimum channel signal to noise ratio of 20 dB and root mean square noise $\sim 1\mu V$.

Control Systems Research Assistant

Ray W. Herrick Laboratories, IN

Aug 2022 – Aug 2025

- Developed an MPC framework for V2H energy management that jointly optimized EV charging, HVAC operation, and solar generation to reduce real-time grid load
- Designed a DC lighting system with a Raspberry Pi/C++ current acquisition module that achieved $\sim 20\%$ energy savings, resulting in a first-author publication at Herrick Conferences 2024
- Deployed IoT power-sensing system leading to \$500 savings and second author publication to ASHRAE Transactions

Robot Control Systems Research Assistant

TRACE Labs, IN

Jun 2024 – Dec 2024

- Built data pipeline using motion capture system (VICON) and Treadmill (D-Flow) for robot motion profiles (Digit)
- Developed data loader in Python for TLIO and customized it to reduce motion sensor (IMU) drift by 40 cm per minute

PROJECTS

Clara AI: Founding Engineer

Pittsburgh, PA

Nov 2025 - Present

- Placed top 15 in Hack-a-Startup competition 2025 out of 48 teams
- Built the computer vision pipeline and Llama-o3 interaction module for a voice-interactive physical therapy agent performing real-time leg extension analysis

Formula SAE: Aerodynamic Design Team

Purdue, IN

Aug 2022 – Aug 2023

- Mitigated drag by 6% by working on front splitter of FSAE car, contributing to an overall 2nd in FSAE 2022 races
- Implemented CAM for gantry, water jetting, milling, and laser cutting machines in Fusion 360 to machine molds, rear wing, and main body elements

ParkVue: Startup Pitch Competition

Purdue, IN

Jan 2023 – May 2023

- Pitched a device using IoT enabled cameras to facilitate and ameliorate real-time parking management and tracking
- Led a team in the John Martinson Entrepreneurial Centre (JMEC) Startup Incubator competition and won \$10,000