Isaac Legene

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Education

Georgia Institute of Technology — Atlanta, GA
M.S. in Robotics – Electrical and Computer Engineering (GPA: 4.0) — *2025 – 2026*

Missouri University of Science and Technology — Rolla, MO
B.S. in Engineering Management - Industrial Engineering (GPA: 3.51) — *2022 – 2024*

Experience

Georgia Tech LIDAR Lab — Atlanta, GA
Graduate Researcher — *Aug 2025 – Present*

- Trained and tuned reward based RL and distillation policies in Isaac Lab to improve humanoid locomotion.
- Participated in hardware test for both locomotion and manipulation policies.
- Developed sim-to-sim validation with the goal of implementing and testing on hardware.
- Designed environment and robot logic for data collection and policy training

Rivian — Normal, IL
Automation Controls Engineering Intern — *Jan 2025 – Aug 2025*
Robotics simulation and virtual commissioning R2

- Supported simulation and virtual commissioning design reviews for all of R2 Body-in-White.
- Developed full-scope production line simulations for upcoming R2 builds.
- Assisted the development of a UI add-in tool that accelerated task timelines in simulation.
- Tested Unity for virtual commissioning as a lower-cost replacement for traditional simulation and VC.

Tesla — Fremont, CA
Automation Controls Engineering Intern — *Jan 2024 – Aug 2024*
Body-in-White Production Equipment Integration for Models 3 & Y

- Oversaw and supported contract work and inventory for Body-in-White production equipment integration.
- Supported the integration of new production controls and processes to ramp up production.
- Designed and implemented HMIs throughout the body shop for future troubleshooting needs.
- Implemented devices and developed PLC programs that were integrated into the production process.
- Completed training in Fanuc/KUKA (101–301), AC/DC circuits, multimeter usage, pneumatics, and PLC programming.

Dakkota Integrated Systems — Chicago, IL
Automation Controls Engineering Intern — *June 2023 – Aug 2023*
Tier 1 supplier for the Ford Expedition and Lincoln Navigator

- Assisted sustainability practices for all process automation systems to ensure quality and continuity of design.
- Troubleshoot and maintain network performance, connectivity, and hardware to mitigate future failures.
- Developed and updated standard work instructions for all manufacturing assembly lines and stations.

Roeslein & Associates — Saint Louis, MO
Electrical & Instrument Designer Intern — *May 2022 – Aug 2022*
Modular fabrication of biogas collection systems on farms domestically

- Reviewed PLC programs for instrumentation and automated procurement processes for biogas systems.
- Coordinated with vendors and managed purchase orders for upcoming projects to mitigate downtime.
- Developed instrumentation datasheets used in P&ID documents and inventory tracking.

Technical Skills

Software: Git, Process Simulate, Isaac Lab, ROS, Unity, Ignition, Linux, MuJoCo, Docker
PLC and Robot Platforms: Beckhoff, Allen-Bradley, Kuka, Fanuc, Kawasaki
Languages: C#/.NET, C++, Python
Key Courses: Computer Vision, Deep Reinforcement Learning, Machine Learning

Clubs and Organizations

National Society of Black Engineers | Epsilon Mu Eta | Pi Kappa Alpha