

# Isaac Legene

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## EDUCATION

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### Georgia Institute of Technology

*M.S. in Robotics – Electrical and Computer Engineering*

Atlanta, GA

2025 – 2027

### Missouri University of Science and Technology

*B.S. in Engineering Management - Industrial Engineering (GPA: 3.51)*

Rolla, MO

2022 – 2024

## EXPERIENCE

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### Georgia Tech LIDAR Lab

*Graduate Researcher*

Atlanta, GA

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 arm policies.
- Developed sim-to-sim validation with the goal of implementing and testing on hardware.

### Rivian

*Automation Controls Engineering Intern*

Normal, IL

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

*Automation Controls Engineering Intern*

Fremont, CA

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.

### Dakota Integrated Systems

*Automation Controls Engineering Intern*

Chicago, IL

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

*Electrical & Instrument Designer Intern*

Saint Louis, MO

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

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**Software:** Git, Process Simulate, Isaac Lab, ROS, Unity, Ignition, Linux, MuJoCo

**PLC and Robot Platforms:** Beckhoff, Allen-Bradley, Kuka, Fanuc, Kawasaki

**Languages:** C#/.NET, C++, Python, R

**Key Courses:** Computer Vision, Deep Reinforcement Learning, Human-AI Interactions, Robotics

## CLUBS AND ORGANIZATIONS

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