Megan Lee

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EDUCATION

CARNEGIE MELLON UNIVERSITY, ROBOTICS INSTITUTE Pittsburgh, PA
Master of Science in Robotics Systems Development Expected Graduation: May 2026
GPA: 4.25/4.0

- **Coursework**: Deep Reinforcement Learning, Deep Learning, Optimal Control and Reinforcement Learning, Robot Autonomy, Computer Vision, Manipulation Estimation & Control

BOSTON UNIVERSITY Boston, MA
Bachelor of Science in Biomedical Engineering, Minor in Mechanical Engineering May 2022

SKILLS

Programming Languages: Python, C, C++, Julia, MATLAB, HTML, CSS
Software: Pytorch, Git, Gazebo, MoveIt, MuJoCo, ROS/ROS2, Jenkins, Docker, OpenCV
Hardware: SolidWorks, Creo, AutoCAD, Arduino, Raspberry Pi

PROJECTS

VLM-GUIDED ROBOT NAVIGATION Oct 2025 – Present
Hierarchical learning combining vision-language models with RL for long-horizon navigation tasks

- **VLM Subgoal Generation**: Integrating VLMs to decompose long-horizon tasks into tractable subgoals, densifying rewards and improving execution for agent
- **Language-conditioned PPO**: Training language-conditioned RL policies using PPO in Habitat simulator

BRAIN FOUNDATION MODEL FOR CROSS-SUBJECT GENERALIZATION Sep 2025 – Present
Domain adaptation and few-shot learning for brain-computer interfaces

- **Domain-Adversarial Training**: Devel oping subject-invariant learning framework combining domain-adversarial training with few-shot adaptation to enable transfer to new subjects with minimal calibration

BIMANUAL INSPECTION ROBOT Aug 2024 – Present
Multi-arm manipulation of irregular-shaped objects for 3d reconstruction and classification

- **Coordinated Dual-Arm Control:** Developed FSM-based control architecture in C++ implementing synchronized grasping, lifting, and 360-degree rotation sequences for coordinated manipulation
- **Full-Stack Robotics Integration**: Architecting a bimanual manipulation system integrating perception, motion planning, and optimal control using ROS2, MoveIt, and Gazebo for effective sim-to-real transfer

PROFESSIONAL EXPERIENCE

RIVIAN Irvine, CA
Software Engineer Intern May 2025 – Aug 2025

- **Test Automation & Validation Infrastructure:** Developed comprehensive test suite for R2 EMM controls algorithm validation and automated instrument testing on power boards

BOSTON DYNAMICS Waltham, MA
Senior Software Test Engineer Nov 2023 – Aug 2024

- **Software Stability on Stretch Behavior Team**: Automated software test processes, eliminated bottlenecks, and established a robust infrastructure for scalable software development resulting in a 250% increase in software stability metrics
- **Production SW Release Management**: Managed stable software releases for production floor by patching software bugs and implementing new features, minimizing time required to validate hardware components

Rotational Engineer Jul 2022 – Nov 2023
Interdisciplinary 18-month leadership program spanning multiple facets of Stretch Warehouse Robotics team

- **Field Deployments**: Deployed robots and off-robot systems (networking, safety system, conveyors) at customer sites and implemented design changes that enhanced product reliability and serviceability
- **Rapid Diagnostics & Root Cause Analysis**: Performed technical root cause analysis of failed robots in the field using internal diagnostics tools to interpret logs and implemented resolutions that minimize downtime
- **Low-Level Fault System**: Implemented robust fault systems in C++ to accurately display any robot state abnormalities by reading force data, joint measurements, power rails, and IMU