Evan T. Pasko

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Education

Massachusetts Institute of Technology (MIT)

Bachelor of Science in Aerospace Engineering with a minor in Computer Science

Relevant Coursework:

Under-actuated Robotics; Space Systems Engineering; Robotics, Autonomy and Decision Making; Real-time Systems

Work Experience

Vivodyne **San Francisco, CA**

Senior Robotics Software Engineer *June 2025-Present*

- Co-architected and led deployment of a fault-tolerant, asynchronous control system for a production fleet of autonomous drug discovery robots, coordinating 6-axis KUKA arms, precision motion stages, hot-swappable end effectors, and laboratory instrumentation under strict safety, efficiency, and reliability constraints.
- Designed software abstractions and orchestration layers enabling safe concurrent operation across heterogeneous subsystems, improving system robustness, recovery from hardware faults, and overall experimental throughput.
- Brought multiple robotic platforms from lab prototype to production, owning system bring-up, hardware/software integration, and deployment across client-facing environments.
- Served as a technical owner for live systems, driving root-cause analysis and long-term fixes for complex electromechanical and distributed-software failures to maintain high availability during client studies.

The Aerospace Corporation **El Segundo, CA**

Senior Member of the Technical Staff *January 2024-May 2025*

- Conceived of and led projects for robotics and autonomy applications targeting RL mission managers for spacecraft, real-time collision detection of lab robotic hardware, and closed loop control of multi-robot systems.
- Developed ROS-based application of novel ML kinematics solver with integrated watchdog for real-time hardware applications on over-actuated robotics platforms and guide ML development for optimal system behavior.
- Designed and facilitated development of multi-satellite proximity operation mission's ROS software architecture.
- Defined new lab software standards, best practices, and introductory material for the robotics lab.

Member of the Technical Staff *September 2022-January 2024*

- Served as an integral developer and technical leader in the robotics lab using a multi-robot-arm testbed to emulate orbital motion of satellites for ground testing of flight-like hardware and software.
- Administered the Linux and network architecture for the lab – maintaining and updating the infrastructure for seamless development and integration of novel hardware and software while keeping IT/FIPS compliancy.
- Trained, deployed, and qualified Artificial Intelligence, Machine Learning, and Reinforcement Learning agents for autonomous control in digital twin environments, and successfully deployed them to hardware in the lab.
- Enabled inter-lab communication for distributed HIL/SIL, leveraging ROS and open source astrodynamics software to demonstrate the capability of an attitude control board's RWA commands effecting robot motion.

Associate Member of the Technical Staff *August 2021-September 2022*

- Facilitated collaboration between 3D printing and robotics work by designing and manufacturing custom components for use in sensor integration, robotics experiments, and hardware demonstrations.
- Designed and developed complete ROS software stack for fiducial-based rendezvous of robotic arms.

Leadership and Awards

The Aerospace Corporation VSD Individual Achievement Award (2023) **El Segundo, CA**

For outstanding personal leadership, unique contributions using AI, and technical contributions to the robotics lab

The Aerospace Corporation SPOT Awards (2024, 2023) **El Segundo, CA**

Recognition of lab system/network administration; technical leadership for applied RL of autonomous drone control

MIT Leadership Opportunities and Recognition **Cambridge, MA**

Undergrad. TA, Men's Varsity Volleyball Captain, All-Academic Team, Fraternity Vice President, '6.141: Best Report'

Relevant Skills and Interests:

ROS/ROS2, MoveIt, Python, URDF/Xacro, C++, Rust, robotic arms (KUKA, Kinova, UR), rovers (Clearpath, Turtlebot), drones, Linux/network administration, Docker, K8s, ML, AI, RL, PLC, SolidWorks, 3D prototyping, project management, Spanish, volleyball, surfing, skiing.