Keith Fritz

Robotics Engineer

EDUCATION

Texas A&M University, College Station, TX
Multidisciplinary Engineering Technology (Mechatronics),
Minor in Embedded Systems Integration

WORK EXPERIENCE

Field Engineer
ARIS Technology – *Chicago, IL*   Feb 2024 - September 2024

- Led the design, testing, and implementation of advanced robotic 3D scanning systems, ensuring successful delivery and integration for multiple clients across various industries.
- Managed large-scale system design and electrical work, contributing to the seamless operation and reliability of complex robotic systems.
- Developed proficiency in FANUC robots and Creaform 3D scanning technology, applying these skills to enhance system performance and accuracy.
- Coordinated with cross-functional teams to troubleshoot and resolve technical issues on-site, ensuring optimal system functionality and customer satisfaction.
- Successfully managed the delivery of multimillion-dollar 3D scanning robotic systems for ARIS Technology.

Aug 2021 - Nov 2023

Robotics Research Engineer / Science Associate II
University of Texas at Austin – *Austin, TX*

- Facilitated ML/AI research for service and social robots, autonomous vehicles, and human-robot interfaces within the Texas Robotics consortium.
- Provided hardware and software expertise for robotic platforms, including manipulators and autonomous systems.
- Managed a state-of-the-art fabrication lab equipped with 3D printing, laser cutting, metalworking machines, and electrical equipment, supporting rapid prototyping and fabrication needs.
- Designed, prototyped, and tested hardware systems for various commercial and custom-built robotics platforms
- Worked extensively with Boston Dynamics Spot, Clearpath Husky, Jackal, Segway RMP220, Kinova Gen3, and Universal Robots UR5.
- Supported the integration of cutting-edge technology into existing robotic platforms, ensuring seamless operation and performance.
- Contributed as a core team member in the development of a magnetic-driven oil tank inspection robot, leading to the formation of Pike Robotics and a pending patent.

DETAILS

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Website: keithfritz.github.io

SKILLS

- Robotic System Design
- 3D Scanning & Metrology
- Fabrication & Prototyping
- Embedded Systems
- Electrical System Design
- ROS, C++, Python
- Additive Manufacturing
- Project Management
- Human-Robot Interaction

KEY PROJECTS

ARIS Large System Delivery

Played a major role in the design, assembly, and delivery of large industrial robotic 3D scanning systems.

Pike Robotics

Designed subsystems and led developmental testing for patent pending oil tank inspection robot.

Aquatic Research Drone

Project Manager for a team that designed and created a semi-autonomous water sampling drone.

REFERENCES

Available upon request.