Jack Schultz, Ph.D.

314-518-9339
jschultz299@gmail.com
https://www.linkedin.com/in/jack-schultz1

Summary

- Flexible and versatile researcher with 5 years of experience in robotics, machine learning, and mechatronic systems resulting in 2 funded grant proposals, 3 publications, 3 poster presentations, and 14 podium presentations.
- Cross-functional collaborator with experience in facilitating and leading dynamic multidisciplinary teams resulting in 12 collaborations across 7 disciplines.
- Creative problem solver with technical expertise in robotics, motion-planning, computer vision, and deep learning as demonstrated by the successful implementation of 16 open-source technologies and solutions.

Work Experience

Robotics, Machine Learning, and Mechatronic Systems Research Scientist

Gained as a Research Assistant in Mechanical Engineering at Cleveland State University in Cleveland, OH and the University of Dayton in Dayton, OH

- Fast paced and dynamic innovator with expertise in deep learning neural networks and modern algorithms as evidenced by training and deploying 4 detection models on robotics hardware with real-time predictions.
- Ability to self-teach and motivated to learn new tools and methods quickly as evidenced by gaining proficiency in 5 programming languages and expertise in over 20 engineering tools and software.
- Strong mentorship experience with broad, translational knowledge across engineering disciplines demonstrated by 14 mentored students across 8 research projects.
- Passionate and skilled engineer with experience in fabrication, prototyping, mechatronics, software programming, and artificial intelligence as evidenced by 6 independent engineering projects.
- Highly motivated life-long learner with in-depth knowledge of machine learning fundamentals as evidenced by 9 independently pursued deep learning courses.
- Desire to have a positive impact on humanity with experience designing human-subject research experiments and analyzing data as demonstrated by working with 32 participants across 3 research studies.

Product Design and Process Optimization

Gained as a Mechanical Engineering Co-op at Inteva Products, LLC in Vandalia, OH

- Ability to develop new methods and enhance current processes, with experience in product design and process improvement, resulting in a projected 3 fold decrease in failed parts in a manufacturing process.
- Expertise in systemization and standard operating procedures, and an ability to manage large-scale equipment installation, as demonstrated by the successful installation of 4 injection molding machines in existing plant facilities.
- Ability to contribute to a team, and proficiency in solid modeling and part design, as evidenced by the design and manufacture of 2 injection tools for soft prototypes.

Education

Ph.D. in Mechanical Engineering with a focus on Robotics, Machine Learning, and Mechatronic Systems.

B.S. in Mechanical Engineering with a Minor in Human Movement and Biomechanics

Techniques, Technical Skills & Documentation

Robotics	ROS / Gazebo / MoveIt	Presentation Skills
Machine Learning	PyTorch / TensorFlow	Research / Data Analysis
Deep Learning	SolidWorks	Creative Problem-Solving
Computer Vision	Minitab / R / SPSS	Technical Writing
Motion-Planning	Cross-functional Collaboration	Project Management
Python / C++ / MATLAB	Strategic Vision	Organization

Affiliations, Awards & Hobbies

- 2022 RehabWeek ICORR Best Paper Award – 2nd place
- Member – Spinal Cord Injury Volunteer Corps – Cleveland State University
- Constantly learning and pursuing new projects (casting aluminum, drone, handheld gaming console, motorcycle rebuild, etc.)
- Classic rock enthusiast with a passion for snow sports (snowboarding and broomball)

Publication List