ALLISON THACKSTON

ROBOTICIST / LEAD ENGINEER and MANAGER

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EXPERIENCE

Nuro, Mountain View, CA. AUG 2019 - CURRENT
Planning and Control

Toyota Research Institute, Los Altos, CA AUG 2016 - JUN 2019
Manager, Shared Autonomy

I founded and led the Shared Autonomy team to investigate novel approaches to safe and easy robotic teleoperation. Duties included defining the mission and goals, developing the software architecture and determining technical requirements. Additionally, I set budgets and timelines, identified and recruited engineers, and built a highly effective team.

Toyota Partner Robotics Group, San Jose, CA SEPT 2015 - AUG 2016
Lead Intelligent Manipulation

I brought up and maintained the robotics lab while managing research contracts and conducting my own research. Research included hierarchical task and motion planning, generalizing grasping primitives and behavior tree based artificial intelligence.

Oceaneering (NASA contractor), Houston, TX DEC 2012 - SEPT 2015
Lead Robotic Perception

I designed, implemented, or otherwise authored the majority of software on Robonaut 2 including the Joint Control API, the safety system, the vision architecture and the kinematic controllers. I also managed several crowdsource initiatives.

Night Vision Labs, Fort Belvoir, VA JULY 2005 - DEC 2012
Electrical Engineer

I developed image processing and target tracking algorithms, managed large data collections and analyzed vendor algorithm performance..

EDUCATION

Georgia Tech, Atlanta, GA — *B.S. EE* 2001 - 2005

University of Hawaii at Manoa, Honolulu, HI — *M.S. ME* 2007 - 2009

Thesis: Autonomous Robotic Manipulation: Collision Avoidance.
Topic covered automatic collision avoidance of a semi-autonomous robotic manipulator using the novel concept of measure of proximity

SKILLS

C++, Python
Javascript, C, C#

ROS, OpenCV, PCL, MATLAB, Simulink, Visual Studio

Linux, Windows, OSX

AWARDS

Special Space Act Award, Robonaut 2. NASA recognition of honor for my participation in the Robonaut 2 project

Superior Assistance Award, NASA ER4 Team recognition for going above and beyond to support visiting graduate students and interns.

PROJECTS

Intelligent Manipulation
Leader of Toyota's Intelligent Manipulation team. Duties included determining research direction and managing timelines.

Robonaut 2
Lead of Robotic Perception. Duties included developing the software architecture for the perception stack and incorporating sensor fusion techniques for robustness.