

ALLISON THACKSTON

ROBOTICIST / LEAD ENGINEER and MANAGER

With a passion for robots and robotic technologies, I bring energy, dedication, and smarts to all the challenges I face. I am highly motivated to work hard and seek out challenges, even in high pressure, deadline driven environments.

EXPERIENCE

Toyota Research Institute, Los Altos, CA — Manager, Shared Autonomy

AUG 2016 - PRESENT

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 — Lead Intelligent Manipulation

SEPT 2015 - AUG 2016

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 — Lead Robotic Perception

DEC 2012 - SEPT 2015

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 crowdsourcing initiatives.

Night Vision Labs, Fort Belvoir, VA — Electrical Engineer

JULY 2005 - SEPT 2015

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

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SKILLS

C++, Python
Javascript, C, C#, MATLAB

ROS, MATLAB, Simulink,
AutoCAD, SolidWorks,
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.