

Mark Jennings

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Work Experience	Education	
<p>Los Alamos National Laboratory <i>R&D Engineer 2021 – Present</i></p> <ul style="list-style-type: none">Overhauled nuclear glovebox with the first autonomous robotic arm in US plutonium part productionDeveloped operating procedures, maintenance plans, control software, and tooling for robotic arm, hydraulic punch, and laser marking systemsCoordinated intern program and advised projectsDOE Q (Top Secret equivalent) security clearance	<p>MS Mechanical Engineering <i>UT Austin 2019 – 2021 3.96 GPA</i></p> <ul style="list-style-type: none">Robotics graduate programThesis: <i>Manipulator Control in Collaborative Assembly</i>	
<p>Nuclear and Applied Robotics Group at UT Austin <i>Graduate Research Assistant 2019 – 2021</i></p> <ul style="list-style-type: none">Developed software to augment assembly tasks with a collaborative robot, reducing reported worker physical effort by up to 57%Refactored custom codebase to leverage open-source libraries for a robust robotic research platform	<p>BS Mechanical Engineering <i>UT Austin 2015 – 2019 3.84 GPA</i></p>	
<p>Sandia National Laboratory <i>R&D Intern Summer 2019</i></p> <ul style="list-style-type: none">Designed additively manufactured metal components and developed corresponding qualification standardsLed 1st place intern team in design competition	<th>Skills</th>	Skills
<p>Apptronik <i>Mechanical Engineering Intern Summer 2018</i></p> <ul style="list-style-type: none">Derived forward kinematic equations for an advanced humanoid bipedal robotUpdated actuator testbed product to achieve higher payloads with lower fabrication costsModeled heat transfer in liquid-cooled actuators	<p>Mechanical:</p> <ul style="list-style-type: none">CAD (SolidWorks & Creo), FEAManual/CNC MachiningAdditive Manufacturing <p>Software:</p> <ul style="list-style-type: none">C++, Python, MATLABRobot Operating System (ROS)Microsoft Office Suite, LaTeX	
<p>ReNeu Robotics Lab at UT Austin <i>Undergraduate Research Assistant 2016 – 2019</i></p> <ul style="list-style-type: none">Fabricated metal components with both manual and CNC machines3D-printed custom hand and finger prosthetics	<th>Outreach</th>	Outreach
	<p>Los Alamos FIRST Tech Challenge <i>Mentor/Coach 2022 – 2024</i></p> <ul style="list-style-type: none">Taught ~12 middle schoolers STEM, problem-solving, and teamworkInspired eligible students to continue with high school robotics	
	<p>UT Robotics & Automation Society <i>Mentor/Officer 2015 – 2019</i></p> <ul style="list-style-type: none">Competed in 1st year robotics challenge and then mentored teams throughout undergradHeaded committee that made eye-catching outreach robots	