# MARK JENNINGS

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## Education – The University of Texas at Austin

**MS Mechanical Engineering** **2019 – May 2021**
Dynamic Systems and Control, 3.95 GPA

**BS Mechanical Engineering** **2015 – 2019**
Robotics Certificate Program, 3.84 GPA

## Research Experience

**Nuclear & Applied Robotics Group** **2019 – Present**
*Graduate Research Assistant*

- Develop real-time controls for passively-balanced robotic arm
- Implement collaborative manufacturing and confined manipulation tasks

**Rehabilitation and Neuromuscular (ReNeu) Robotics Lab** **2016 – 2019**
*Undergraduate Research Assistant*

- Designed and manufactured parts for rehabilitation robots
- 3D printed and assembled prosthetic hand and prosthetic finger

## Work Experience

**Sandia National Labs** **Summer 2019**
*R&D Intern*

- Proposed qualification procedure for additively manufactured metal parts
- Designed electronics housing and validated through mechanical testing
- Awarded first out of three teams in summer design challenge

**Apptronik Systems** **Summer 2018**
*Engineering Intern*

- Fabricated mechanical parts for lower-body powered exoskeleton
- Designed and validated actuator testbed product
- Developed forward kinematics for 10 DoF bipedal robot

## Leadership Experience

**Capstone Engineering Project** **Spring 2019**
*Engineering Lead*

- Collaborated with 3 other seniors to redesign a feedstock hopper for an SLS printer
- Delivered final prototype with significantly improved powder retention and distribution

**UT Robotics & Automation Society (RAS)** **2015 – 2019**
*Mentor, Officer*

- Assisted in community outreach events to introduce youth to robotics
- Mentored 3 teams of 5-6 students in annual robotics competition

## Technical Skills

| | *Proficient* | *Familiar* |
|---|---|---|
| **Programming** | C++, Robot Operating System (ROS), Linux | Python, MoveIt |
| **Software** | SolidWorks, MATLAB, MS Office | PTC Creo, LabVIEW |
| **Algorithms** | Manipulator control, Obstacle avoidance, A* | SLAM, Point set registration |
| **Fabrication** | Manual machining, Additive manufacturing | CNC operation |