

MIRANDA W. HUDSON

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Summary of Qualifications

Graduate student in Mechanical Engineering interested in design and production in the medical industry. Seeking to transition career of 6+ years in management into engineering role utilizing natural sciences and technology background. Strong research and design background evidenced by assistantship, projects and internship. Skills include:

Technical Product Design: Experienced designing and developing SolidWorks models for 3D printing. Designed diagrams and value maps indicating time and cost savings achieved by utilizing 3D technology. Completed core design courses for mechanical engineering, including: Introduction to Mechanical Design and Mechanical Engineering Design.

Research and Evaluation: Completed two years of research on various prosthetic design and engineering focused projects. Created proof showing 3D technologies can decrease turnaround time of prosthetic fabrication process.

Leadership and Communication: 6+ years managing 15-member food service and retail store as well as team lead on prosthetic hand design research and officer of Associated Students of Mechanical Engineering (ASME). Developed relationships with various clinics and hospitals in Seattle area for collaborative research.

Education

Master of Science in Mechanical Engineering University of Washington, Seattle, WA Relevant Coursework: Engineering Innovations in Medicine, Introduction to Biomechanics	Anticipated June 2012
Bachelor of Science in Chemistry, minor in Biology Central Washington University, Ellensburg, WA	June 2011

Skills & Tools

- Highly proficient in MATLAB, AutoCAD, SolidWorks, Adobe Systems, Microsoft Systems
- Working knowledge in Qualisys, ANSYS, Arduino

Experience

Prosthetics Research Assistant , UW Department of Rehabilitation Medicine	Jan. 2018 - Present
<ul style="list-style-type: none">• Collaborated with 8 employees from Seattle Children's Hospital and Cadence Biomedical to develop product.• Took from design iteration through prototyping of prosthetic foot using 3D parts printed from my Solidworks designs.• Analyzed motion capture data to further developing and adapting novel prosthetic foot.	
Voice Controlled Prosthetic Hand , Mechanical Engineering Design Course	Sept. 2018 - Dec. 2018
<ul style="list-style-type: none">• Designed voice controlled prosthetic hand using 3D printed parts in collaboration with biomedical engineering department.• Analyzed effectiveness of device through 3 stages of testing and wrote final report detailing findings.	
Store Manager , Seattle Coffee Works	June 2011 - March 2017
<ul style="list-style-type: none">• Managed hiring, schedules and compensation for 15-member store serving 300+ customers per day• Trained and provided feedback to new team members and seasonal employees over 6 years	
Intern , Seattle Children's Hospital	Sept. 2010 - June 2011
<ul style="list-style-type: none">• Perform intake interviews to gather and record detailed medical information of clinical trial patients• Communicate with parents and guardians about research requirements and explain scientific information about the trial in easily understandable language	

Involvement and Activities

Officer (Spring 2018-Present), Member , Associated Students of Mechanical Engineering	Fall 2017 - Present
<ul style="list-style-type: none">• Organized industry guest speaker events for ASME as well as recruited 30 new students to join organization.	
Member , Society of Women Engineers	Fall 2017 - Present
Volunteer , American Red Cross	Nov. 2013 - March 2017
Volunteer , UW Medical Center	Jan. 2016 - Sept. 2018