

Jesse L. Grupper

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Education

Tufts University - Medford, MA

Bachelor of Science, Mechanical and Biomedical Engineering, May 2019

GPA: 3.70, Dean's List

Relevant Coursework: Design Experiment Stats; Engineering Design Process, Mechanical Design and Fabrication, Statics and Dynamics, Computational Design, Differential Equations, Linear Algebra, Introduction to Modern Physics

Engineering Experience

Dr. Barry Trimmer's Neuromechanics and Biomimetics Lab

Medford, MA

Undergraduate Research Assistant

October 2016 – July 2017

- Fabricated soft robotic prototypes to aid in natural disaster relief
- Controlled robot motion with an electromagnetic motor and clutch array using a rotary encoder and an Arduino
- Constructed and tested different types of rotary encoders to maximize efficiency and accuracy in prototypes.
- Tracked robot motion and velocity using a camera and Kinovea software
- Collaborated with peers to design iterations of prototypes and presented these prototypes at lab meetings

Next Step Orthopaedics

Caldwell, NJ

Orthotic and Prosthetic Assistant

June 2015 - July 2015

- Molded and casted lower-extremity prostheses for patients using plaster casts and carbon fiber
- Created casts for patients with drop-foot
- Organized the tools and casting materials

Work Experience

Residential Life

Medford, MA

Resident Assistant

January 2017 – May 2017

- Provided paraprofessional conflict advising to students to ensure their comfort and safety in the building
- Led programming events for over 25 students

Mathnasium

Montclair, NJ

Math Tutor

June 2016 - August 2016

- Taught math to groups of 4 students, K-12

Choice Personnel Inc.

New York, New York

Assistant Catering Waiter

May 2016 – August 2016

- Ensured customer quality care by providing services as requested
- Followed instructions to ensure high standards of events

B'nai Keshet,

Montclair, NJ

Special Education Assistant Tutor

June 2013 - May 2015

- Taught children with disabilities, ages 9-12, one-on-one
- Managed and organized the classroom for up to 20 students

Volunteering

Peak Potential

Montclair, NJ

Lead Volunteer

November 2013 – May 2017

- Taught climbing to children with physical disabilities
- Strengthened weaknesses in children by assisting them to move on the climbing wall

Skills

Computer: LabVIEW, MATLAB, C++, 123D design, SolidWorks, HTML, Microsoft Word, PowerPoint, Excel

Fabrication: Laser Cutting, 3D printing, Molding, Casting, Water Jetting, Drill Press, Chop Saw, Horizontal Band Saw

Professional Climbing Career

Climbing

- Placed 2nd at USA Sport Climbing Open Nationals
- Placed 2nd at World Youth Championships
- Awarded the North Face Young Gun for Good Sportsmanship

Denver, CO 2017

Arco, Italy 2015

Atlanta, GA 2015

Coaching

- Coached Metrorock Climbing Gym's Youth Team

Everett, MA 2015-2016