Heidi V. Peterson

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EDUCATION

Massachusetts Institute of Technology, Cambridge, MA   9/19 – present
SM in Mechanical Engineering, expected 2021
- Presidential Graduate Fellowship Award (funds the tuition and stipend for first academic year at MIT)
- Relevant coursework: Structural Mechanics, Bio-inspired Robotics
- MakerWorkshop mentor

Stanford University, Stanford, CA   9/14 – 6/18
BS in Mechanical Engineering with Distinction, 2018 – GPA 4.0
- Terman Scholar (top 5% of each year's undergraduate senior engineering class)
- Tau Beta Pi Engineering Honor Society member
- Relevant coursework: Mechatronics, Biomechanics of Movement, Computer Science, Human Biology
- Stanford Outdoor Education Trip Leader, Stanford Marching Band member, Girls Teach Girls to Code Mentor

Lick-Wilmerding High School, San Francisco, CA   9/10 – 6/14

COURSE PROJECTS

Impedance Controlled Bipedal Walking Robot, *Bio-Inspired Robotics*, MIT   8/19 – 12/19
- Simulated, built, and tested a bipedal walking robot using impedance control, with team of 3
- Utilized the simulation and robot to test the effect of disproportionate distal weight on power consumption

Motion Sickness Tablet Mount, *Mechanical Engineering Design*, Stanford University   4/18 – 6/18
- Created an actuated tablet mount designed to mitigate motion sickness effects, with team of 4
- Incorporated IMUs, servo motors, and custom hardware to rotate mount according to angular velocity of vehicle

Autonomous Biomimetic Jumping Robot, *Mechanical Systems Design*, Stanford University   1/18 – 3/18
- Designed and built a small, battery-powered jumping robot, able to leap 1 meter vertically, with team of 4

EXPERIENCE

MIT Global Engineering and Research Laboratory, *Graduate Research Assistant*, Cambridge, CA   9/19 – present
- Determine the lower leg trajectory error values for several prosthetic feet using a custom actuated foot tester

Verb Surgical, *Systems Integration Engineering Intern*, Mountain View, CA   1/19 – 7/19
- Integrated different components of an advanced medical robotic system and designed system-level tests
- Developed, executed, and analyzed the results of a hall sensor and motor encoder characterization test, used to determine and store the component characterization in hardware, to be referenced during power-on self-tests
- Designed a protocol and templates for using custom NPI software to develop manufacturing tests

Stanford Neural Prosthetics Translational Laboratory, *Undergraduate Researcher*, Stanford, CA   7/17 – 1/18
- Designed, built, and validated target placement systems for BCI robotic arms, including an ARAT test, constructed box and blocks set, and a modified X-Carve CNC router
- Attended and assisted BrainGate2 clinical trial sessions

Fogarty Institute for Innovation, *Lefteroff Intern, Zebra Medical Technologies*, Mountain View, CA   6/16 – 8/16
- Designed, modeled, and tested the outer shell of a handheld skin imaging microscope, considering form factor, usability, and internal optical components
- Devised, 3D-printed, and silicone-molded light collection fibers used to separate wavelengths of light
- Compiled Medicare data to create a financial model, and drafted device summaries for patent applications

SKILLS & INTERESTS

Portfolio heidivpeterson.com
Awards Woodworking and Oil Painting– 1st and 2nd places in 2011-2015 CA State Fair Youth Art and Design Expos
Languages Spanish and Italian (basic)
Technical Proficiency MATLAB, Python, Arduino, Java, C++, Microsoft Office, SolidWorks, LabVIEW
Professional Interests Prosthetics, medical devices, surgical robotics
Personal Interests Backpacking, oil painting, Lord of the Rings, woodworking, cooking, soccer, flute, travel