Lauren Luo

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EDUCATION

Massachusetts Institute of Technology

Bachelor of Science, Mechanical Engineering, minor in Computer Science, concentration in Design
Pi Tau Sigma, Mechanical Engineering Honors Society
GPA 4.7/5.0

University of Cambridge

Study Abroad in School of Engineering, Mechanical Engineering
Key courses: Operations Management, Finite Element Analysis, Fracture Analysis, Mathematical Physiology

SKILLS

Software
- Solidworks CAD
- Onshape
- Abaqus CAE
- Mastercam
- Microsoft Excel VBA
- Microsoft Office Suite
- Adobe Illustrator

Machine Training
- Injection Molding
- Laser Cutting
- 3D Printing
- CNC Mill
- CNC Lathe
- Welding
- Thermoforming

Programming
- Python
- Matlab
- Java
- JQuery
- LaTEX
- Html/CSS

EXPERIENCE

MIT Biomimetics Lab | Undergraduate Researcher
Cambridge, MA, Jun 2017 - Present

- Generated finite element simulations for shoe sensors force patterns for contact angles and compressions.
- Analyzed experimental and simulated force sensor results to identify simple model for future designs.
- Programmed and tested skeleton code for firebase.io database connection with microcontroller.

BNP Paribas | Global Markets Sales and Trading Intern
New York, NY, Jun 2016 - Aug 2016

- Developed and implemented more accurate method of net liquidity cost allocation amongst departments and collaborated with strategy heads in international offices on company-wide implementation.
- Created structured equities product breakdown to increase transparency with clients.
- Collaborated with equity derivatives sales and traders to develop automated client activity analysis for efficient sales.

Affective Computing | Undergraduate Researcher
Cambridge, MA, Fall 2015

- Design and tested an Arduino-based pain input program for patients of injection pain clinical research
- Programmed algorithms to censor data and edit user-interface using python.
- Designed a CAD exterior casing for experimental setup.

TsingYi IVE | Robotics Team Mentor
Hong Kong, Jan 2015

- Taught Computer Vision basics using OpenCV and python to robotics team and progressed to world championships.
- Developed program that isolates and recognizes badminton shuttlecock from environment through camera feed.

PROJECTS

Medical Device Design: Digitalizing a Stethoscope
Cambridge, UK, May 2016

- Digitalized the stethoscope to help local general practioners by designing an add-on to the existing stethoscope.
- Addressed key consumer issues with solutions such as instant recording and filtering of background noises, visualizing texture of sound, and creating a user-friendly interface for comparing historical data.
- Produced real-time data-display and database record updates using GUI in Matlab and SOAP client.

Automotive Suspension Design: Formula Student Racecar
Cambridge, UK, May 2016

- Designed a CAD for mechanical structure of a front wheel suspension system using OnShape
- Performed material selection analysis for Formula Student racecar competition.

ACTIVITY

TechX: MakeMIT | Event Organizer
Cambridge, MA, Sep 2014 - Jun 2016

- Organized and led logistical efforts to host MakeMIT, an annual hardware hackathon.
- Negotioated with sponsors to provide the best material resources, learning experience, and environment for creativity.
- Mentored teams and predicted supply needs to help hackers prototype with lasercutters and 3D printers.

Dancer | Photographer | Maker | Designer | English and Chinese Speaker