Audrey W. Lee

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Skills

Programming Languages
- Python
- C++/C#
- Java
- HTML

Software
- SolidWorks
- Autodesk Inventor/Revit
- Unity
- MATLAB
- Mathematica
- Arduino
- Adobe Photoshop/Illustrator

Machine Shop
- Laser Cutter
- 3D Printing
- Drill Press
- Band Saw
- Scroll Saw
- Belt Sander
- Resin 3D Printing

Additional Interests
- Robotics
- Entrepreneurship
- Playing Piano & Violin

Experience

Leader; Computer Engineer; Robot Perception   **2018-09, present**
Human Interactive Robotics Laboratory (HIRo), Olin College of Engineering, Needham, MA
- Worked in a team to program robotic arms to interact with the physical world.
- Worked on several projects one involving robotic arms competing against humans in chess and leader of another geared towards object detection and location in a 3D space.
- Working on a project that involves Reinforcement Learning with object localization

Member   **2018-09, present**
Society of Women Engineers (SWE), Olin College of Engineering, Needham, MA
- Encourage women to be interested in STEM and volunteer at Olin affiliated events to promote women in STEM

Sub-Team Leader; Augmented Reality Research   **2019-01, 2020-02**
Spatial Computing Laboratory, Olin College of Engineering, Needham, MA
- Using Unity and C#, created an AR experience that focuses on consumer interactions with the AR program and other consumers
- Leading Machine Learning sub-team to overlay and match models with real-world objects.

STEM Camp Instructor   **Summer 2019**
iD Tech Camp, Northern California
- Taught Machine Learning in Python and Vex Robotics in C++ to children ages 10-18 at several Northern California locations

Paid Tutor   **2014-03, 2018-08**
Kumon North America, Napa, CA
- Three to six hours/week, I helped tutor children of all ages (from K-12) in math and English.

Education

Olin College of Engineering   **Expected Graduation - May 2022**
- Bachelor of Science in Electrical and Computer Engineering.
- Recipient of 4-year, 50% Olin Merit Scholarship
- GPA: 3.95

Justin-Siena High School   **2014-08, 2018-05**
- Graduated top 5% of class with 14 Honors and Advanced Placement® courses in mathematics, English, science, social studies and computer science
- GPA: 4.48

Projects

Data Structures and Algorithms Course   **2020-04, 2020-05**
Maze Generation and Traversal Project
- Implemented Depth First Search, Breadth First Search, and an A* algorithm to traverse randomly generated mazes.

Machine Learning Course   **2019-11, 2019-12**
Neural Tunes Project
- Trained a LSTM RNN model to generate music notes from 315 MIDI files of Beetles music.

Principles of Engineering Course   **2019-10, 2019-12**
Castle of Air Project
- Using an Arduino, created, designed, and prototyped a PCB that filters and amplifies sound waves. Using Arduino's IDE, performed Fourier Transform on the sound waves to extract frequencies and their respective amplitudes.