

Shan Shan Huang

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EDUCATION

Massachusetts Institute of Technology/ *Candidate for Bachelor of Science in Mechanical Engineering*

May 2022, Cambridge, MA

- GPA: 4.5/5
- Relevant coursework: Mechanics & Materials I, Design & Manufacturing I, Thermal-Fluids Engineering I, Dynamics & Control I, Electronics for Mechanical Systems, Mobile Autonomous Systems Lab, Toy product design, Subtractive manufacturing, Numerical computation, Differential equations

Jersey Village High School

May 2018, Jersey Village, TX

- GPA: 6.8/6; Class rank: 5/835

EXPERIENCE & ACTIVITIES

Solar Electric Vehicle Team/ *Member in the Mechanical Engineering subteam*

September 2019 - PRESENT, Cambridge, MA

- Led the redesign of the original accelerator to be compatible with the brake's position, torsion spring component, and potentiometer attachment
- Worked in a team to design the torsion spring component for the car accelerator, enabling driver force feedback and rotation of the lever pedal

MIT Biomechanics Lab/ *Undergraduate researcher in the simulations sector*

June 2019 - January 2020, Cambridge, MA

- Contributed to research on the volitional movement of the lower limb through MATLAB analysis and co-authored the resulting manuscript
- Designed and soldered the cable connection to a thin film electrode attachment board
- Resampled data and developed the MATLAB code to calculate motion variables for joints on different terrains, which provided a golden standard for researchers to compare experimental results with

Mobile Autonomous Systems Lab (MASLAB)/ *Team member*

January 2020 - February 2020, Cambridge, MA

- Collaborated with teammates on the autonomous robot design consisting of the floor intake, upper floor intake, and upper floor dispenser
- Created 3D models of the floor intake mechanism and electronics mount, integrated them into the assembly
- Worked on positioning the mechanisms and incorporating the components onto the drivetrain
- Placed first at the competition, scoring 75 points

Projx/ *Co-head of project*

November 2018 - February 2019, Cambridge, MA

- Designed the mechanical components for a prototype portable inkjet printer including the paper tray, printer frame, and inkjet head moving mechanism
- Investigated the limitations of current printer designs on minimizing size and ink transmission methods
- Researched electrical components to interface with the mechanical design
- Soldered electrical components together

SKILLS & INTERESTS

- Materials experience: PLA, ABS, Aluminum, Blue Foam, Acrylic
- Machinery experience: End mill, Lathe, Bandsaw, Laser cutter, 3D printer, Water jet, Thermoform
- Software & Programming: MATLAB, Solidworks, Python
- Languages: Fluency in Cantonese and intermediate Spanish
- Interests: Arts & Crafts (DIYs), Autonomous Vehicles, Foreign languages, Traveling, Cuisines, Horror movies, Card games, Entrepreneurship, Medical Devices