GEORGE CHEN

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229 Vassar Street, Cambridge, MA 02139

EDUCATION

Massachusetts Institute of Technology **Cambridge, MA**
Candidate for Bachelor of Science in Mechanical Engineering | GPA: 4.8/5.0 ***June 2021***
Relevant Coursework: Dynamics and Control, Signals and Systems, Thermal-Fluids Engineering, Measurement and Instrumentation, Design and Manufacturing, Mechanics and Materials, Fundamentals of Programming, Numerical Computation, Electronics for Mechanical Systems

EXPERIENCE

Daimler Trucks North America, LLC **Portland, OR**
Product Validation Engineer Intern, Vehicle Dynamics ***Jun 2019 – Aug 2019***

- Designed and iteratively prototyped a distributed IMU sensor system to measure articulation angle of instrumentation tractor-trailer trucks in Arduino
- Tested and evaluated performance of the sensor system in MATLAB, optimized its accuracy via sensor fusion with GPS using Kalman Filter, designed interface PCB layout to read and write CAN messages
- Validated ADAS camera systems by overlaying lane lines on recorded videos using computer vision in Python (OpenCV)
- Assisted in engine noise testing and durability testing efforts, assembled brake pressure transducers and CAN bus harnesses for steering / handling tests

Millennium Space Systems, A Boeing Company **El Segundo, CA**
Spacecraft Thermal Engineer Extern ***Winter 2019***

- Designed and executed a characterization test in thermal vacuum chamber comparing the effectiveness of multilayer insulation with other reflective materials, analyzed test data using MATLAB and Microsoft Excel
- Composed test plans, test procedures, and memorandum for record for release to Document Control and Management, created drawings of test configurations using Solidworks
- Worked with system engineers and program managers to assist in requirement verification across multiple subsystems for a flight program, ensured action items were in compliance before delivering

MIT Space Systems Laboratory & Lincoln Laboratory: WaferSat **Cambridge, MA**
Research Assistant, Thermal Engineering Team ***Jan 2018 – Aug 2018***

- Characterized thermal behaviors of a PCBSat prototype in space-like environment simulated in thermal vacuum chamber
- Developed and optimized PID control algorithm using Python and C++ to maintain steady-state temperature inside thermal vacuum chamber with 40% less power output
- Analyze temperature signals using MATLAB and correlate with analytical model in Thermal Desktop

MIT 2.00B Toy Product Design **Cambridge, MA**
Team Member ***Feb 2018 – Jun 2018***

- Prototyped a piano toy that paints onto a rolling sheet of paper, worked in a team of four over a semester
- Designed, laser-cut, and 3D printed internal support structures for the piano using Solidworks and Illustrator
- Programmed speakers to respond to key presses using Arduino and wired connections for all electronics

SKILLS

Hardware: bandsaw, drill press, CNC mill & lathe, hand & power tools, 3D printing, laser cutting, soldering, PCB design
Software: Solidworks, Thermal Desktop, ROS, Linux, Git, AutoCAD, Arduino, Raspberry Pi, Microsoft Office
Programming: Python, C++, MATLAB, HTML, CSS
Languages: Fluent in English, Mandarin Chinese, and Cantonese