GEORGE CHEN

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EDUCATION

Massachusetts Institute of Technology **Cambridge, MA**
Candidate for B.S. in Mechanical Engineering, Minor in Computer Science | GPA: 4.8/5.0 ***June 2021***
Relevant Coursework: Analysis and Design of Feedback Control Systems, Introduction to Robotics, Signals and Systems, Dynamics and Control, Artificial Intelligence, Introduction to Algorithms, Numerical Computation, Thermal-Fluids Engineering, Design and Manufacturing, 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 processing 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

MIT 2.678 Autonomous Robot Competition **Cambridge, MA**
Grand Champion ***Feb 2019 - Jun 2019***

- Programmed an Arduino-controlled autonomous robot that uses infrared sensors to follow a discontinuously marked course with sharp turns using PID control
- Won first place in the autonomous race out of 60 students

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

- Developed and optimized PID control algorithm in Python and C++ for a WaferSat prototype to maintain steady-state temperature with 40% less power output
- Characterized thermal behaviors of the nanosatellite prototype in space-like environment in Thermal Desktop
- Conducted tests in thermal vacuum chamber, analyzed temperature signals using MATLAB and correlated with analytical Thermal Desktop model

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, Arduino, Raspberry Pi, Microsoft Office
Programming: Python, C++, MATLAB, HTML, CSS
Languages: Fluent in English, Mandarin Chinese, and Cantonese