# GEORGE CHEN

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## EDUCATION

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

## EXPERIENCE

**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 requirement verification efforts across multiple subsystems for a flight program in its final phase, ensured action items were in compliance before shipping

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

- Developed and revised PID control algorithm using Python and C++ to maintain steady-state temperature with 40% less power output inside thermal vacuum chamber
- Tested thermal behaviors of the PCBSat prototype in space-like environment in thermal vacuum chamber, modeled and processed temperature signals both numerically and analytically using MATLAB and Thermal Desktop
- Calculated center of mass and other inertial and dynamic properties of the nanosatellite to ensure orbital stability using Solidworks and Microsoft Excel

**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 the course of a semester
- Designed, laser-cut, and 3D printed internal support structures for the piano using Solidworks and Adobe Illustrator
- Programmed speakers to synchronize with key presses using Arduino and wired connections for all electronics
- Delivered presentation of design ideas to an audience of more than 300 people

## LEADERSHIP AND ACTIVITIES

**MIT Undergraduate Practice Opportunities Program (UPOP)** **Cambridge, MA**
*Program Participant* ***Oct 2018 – Present***

- Participated in a yearlong professional development program preparing sophomores for success in the workplace
- Completed an intensive professional development workshop taught by MIT faculty and industry professionals, which explores topics such as effective communication, foundational decision-making, and teamwork

**MIT Freshman Pre-Orientation Program: Discover Product Design** **Cambridge, MA**
*Mentor* ***Summer 2018***

- Mentored 23 incoming MIT first-year students in a weeklong program, introducing them to product design, ideation, rapid prototyping, and CAD
- Composed lesson and activity slides, provided students guidance on designing and prototyping their final project

## SKILLS

**Hardware:** bandsaw, drill press, CNC mill & lathe, 3D printing, laser cutting, soldering
**Software**: Microsoft Office, Linux, Windows, Solidworks, AutoCAD, MATLAB, Thermal Desktop, Python, C++, Arduino, Mathematica, Adobe Illustrator
**Languages**: Fluent in English, Mandarin Chinese, and Cantonese