Jayden Ma

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EDUCATION

Boston University College of Engineering, Boston, MA **May 2022**
Bachelor of Science in Mechanical Engineering (Concentration in Aerospace Engineering)
Cumulative GPA: 3.72/4.00

Coursework: Fluid Mechanics, Mechanics of Materials, Thermodynamics, Dynamics, CAD, Manufacturing, MATLAB

EXPERIENCE

GE Aviation, Lynn, MA **Jan. 2021 - Present**
Fuel Systems Test Engineering Co-op

- Tested fuel metering unit for NPI turboshaft engine using SCADA controls to reach full T901 engine testing by fall
- Led quality testing of turboprop oil coolers to provide on-time delivery of 17 F414 aircraft engines in Q1
- Learned to setup/maintain fluid systems by reading P&IDs and installing components as designed by customers

Boston University Rocket Propulsion Group (BURPG), Boston, MA **Mar. 2019 - Present**
Lead Fluid Systems Engineer & Mechanical Engineer

- Developed fluid systems on Pursuit, the team's first liquid rocket, powered by record-breaking 2500 lbf engine
- Led design and testing of engine feed system and co-designed gas generator cycle for liquid rocket
- Worked with other leads to rollout fast-paced design and test campaign, and achieve first launch in summer 2022

GE Aviation, Virtual (COVID-19) **July - Aug. 2020**
Engineering/Technology Intern

- Developed design/supply chain fundamentals for jet engines and engaged in learning lean six sigma principles
- Worked with team as Finance Lead in simulated New Product Introduction through Tollgate 3, 6, and 10

PROJECTS

"Liquid Rocket Engine Feed System," BURPG Project **Jan. 2021 - Present**

- Finished design of pressurization & feed system delivering pressurized bipropellants for nominal engine thrust
- Led re-design of P&ID, component selection, pressure budget, & routing CAD after 2021 major vehicle changes
- Oversaw and advised routing assembly plan, component testing operations, and vehicle launch operations

"Liquid Rocket Gas Generator System," BURPG Project **Sept. 2019 - Jan. 2021**

- Co-designed gas generator cycle that increases efficiency of feed system and decreases vehicle mass by 209 lbm
- Modeled chamber and heat exchanger CAD given simulated thermal-structural loads to prevent component failure

"**COVID-19 Mask Dispenser**," Product Design Class Project **Sept. - Dec. 2020**

- Co-developed and prototyped contactless mask dispenser as new product for contemporary issue with team of 4
- Designed housing and geared roller mechanism using calculations for friction, torque, and gearing
- Led coding of emptiness & activation sensors and manufactured three prototypes for design reviews

"F-Class Model Rocket," Personal Project **July - Sept. 2019**

- Designed and additively manufactured F-class motor model rocket in OpenRocket & Solidworks
- Learned machining and designed circuits to build launch pad, launch controller, and recovery system
- Simulated to apogee of 1000 meters and max speed of Mach 1

Additional Projects: Feminine Hygiene Product Dispenser, C# Kinect Game, Smart Glasses

SKILLS

Computer: Python, Excel/VBA, MATLAB, C, HTML, Photoshop, Visio
Engineering: Solidworks, CREO, ANSYS, Machine Shop, 3D Printing, Arduino, P&ID, HMI/SCADA, Circuit Design
Language: Fluent in Chinese (Cantonese), conversational in French

LEADERSHIP & HONORS

College of Engineering Dean's List **Spring 2019, Fall 2019, Fall 2020**
EK100 Freshman Student Advisor: Boston University College of Engineering **Aug. 2020 - Present**
Clarinet Section Leader: Boston University Marching Band **Aug. 2020 - Present**