

Kelvin Cheung

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EDUCATION

Georgia Institute of Technology (GT)

Atlanta, GA

Honors B.S. in Aerospace Engineering, Minor in Japanese, **GPA: 3.94/4.00**

Aug. 2025 – Expected Dec. 2028

RESEARCH & ENGINEERING EXPERIENCE

Undergraduate Research Assistant

Aug. 2026 – Present

Aerospace Systems Design Laboratory (ASDL)

Atlanta, GA

- Evaluate lunar surface architectures and enabling technologies for sustained human and robotic exploration
- Conduct trade studies of lunar infrastructure, transportation, and logistics under mission-level constraints
- Assess subsystem interactions and design drivers to identify architecture-level impacts on future lunar operations

Aerostructural Engineer

Sep. 2026 – Present

Yellow Jacket Space Program (YJSP) – Elytra Project

Atlanta, GA

- Support structural design and analysis of the Elytra vehicle under anticipated flight and ground-loading conditions
- Develop preliminary CAD concepts in SolidWorks and evaluate structural requirements for vehicle components
- Coordinate with propulsion, avionics, and manufacturing subteams to support vehicle-level integration

Thermal & Materials Researcher

Dec. 2025 – Jun. 2026

IEEE ECTC Student Innovation Challenge – 1st Place

Orlando, FL

- Optimized lid geometry and underfill reinforcement, reducing warpage by 91% and peak solder stress by 64.2%
- Conducted SolidWorks thermal-structural co-simulations across multiple lid geometries to improve heat transfer
- Evaluated 30+ lid materials using a cost-performance matrix for material selection and geometry optimization

Aerospace Design Engineer

Aug. 2025 – May. 2026

Georgia Tech AIAA Design Build Fly (DBF) – Puck Subsystem

Atlanta, GA

- Designed an aircraft storage system and analyzed MATLAB flight data, reducing mission time by 75%
- Evaluated aircraft design trade-offs for performance and manufacturability, reducing flight cost by 25%
- Guided 5+ members in CAD and fabrication; team ranked 7th among 100+ teams at DBF 2026 Competition

Aerospace Materials Researcher

Sep. 2023 – Mar. 2026

CREST Gold Award – Aerospace Materials Research Project

York, UK

- Developed Blender prototypes and conducted wind-tunnel tests and BIOVIA Materials Studio collision simulations
- Evaluated 30+ alternative materials and designs for mass, cost, durability, sustainability, and manufacturability
- Investigated aerospace 3D-printing applications with a materials scientist; presented findings to 30+ officials

PUBLICATION

Cheung, Lok Teng. “Could 3D-Printed Plastic Replace Traditional Aerospace Materials When Producing Rockets and Satellites?” *IJHSSR*, vol. 7, no. 12, pp. 141–153, Dec. 2025.

LEADERSHIP

Co-founder | *Future of Engineers (A UN Engineering Forum)*

Sep. 2024 – Jun. 2025

- Co-founded a youth engineering initiative and grew the team to 15 members through program development
- Organized a UN General Assembly engineering forum reaching 52+ countries and generating 17.6K views

Space Science Lead & Presenter | *Catalyzing Research Institute*

Sep. 2024 – Jun. 2025

- Hosted a space-elevator talk during UN Global Goals Week to promote aerospace engineering to 900+ youth

TECHNICAL SKILLS & INTERESTS

CAD & Simulation: SolidWorks (CSWA), BIOVIA Materials Studio, Thermal-Structural Simulation

Programming & Technical Tools: MATLAB, HTML/CSS, LaTeX

Testing & Visualization: Wind-Tunnel Testing, Blender, Procreate

Languages: Cantonese (Native), Mandarin (Native), English (Fluent, IELTS 8.0), Japanese (Intermediate, JLPT N3)

Interests: Photography, Drawing (Colored Pencil, Watercolor, Digital), Creative Writing, Anime