

Kai Chen

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Education

University of Toronto

Toronto, ON

Bachelor of Applied Science in Mechanical Engineering

Sep. 2022 - May 2027

- Professional Experience Year (PEY) Co-op Program
- Cumulative GPA: 3.75 (High Honours)
- Triple Minor in Advanced Manufacturing, Sustainable Energy, and Engineering Business

Professional Experience

National Air Cadet League of Canada

Remote

Graphic Designer

Sep. 2022 - Present

- Designing key documents and promotional materials, including strategic plans, branding kits, media standards, federal grant proposals, and national training modules delivered to over **7,000** volunteers

Safran Landing Systems

Ajax, ON

Advanced Projects Intern (Co-op Program)

Aug. 2025 - Aug. 2026

- Defined pre-bid requirements and led conceptual landing gear design for emerging aircraft architectures
- Modelled **2** generic unconventional airframes based on literature and industry trends, evaluating **20+** conceptual landing gear configurations in *CATIA V5* for aircraft integration and design feasibility
- Applied an in-house multidisciplinary optimization tool to reduce gear structural weight by **~15%**

University of Saskatchewan

Saskatoon, SK

Undergraduate Student Researcher

May 2025 - Jun. 2026

- Led analysis for and first-authored a Canadian Engineering Education Association (CEEA) conference paper examining **60+** years of student and alumni data and shifts in engineering identity

Extracurriculars

UofT Aerospace Team

Toronto, ON

SAE Chief Airframe Engineer

Jan. 2024 - Present

- Leading **42** students across **5** subteams in the end-to-end design, analysis, manufacturing, and flight testing of autonomous package delivery aircraft
- Defining airframe requirements and coordinating multidisciplinary design decisions and tradeoffs
- Making key administrative decisions, managing a **\$20,000** annual budget, mentoring leads, and hosting weekly meetings, workshops, and build sessions

Projects

UT-26 MAPLE (Multicopter Autonomous Package Logistics Enabler)

Sep. 2025 - Apr. 2026

- Conceptualized, CADed in *SOLIDWORKS*, analyzed in *OpenVSP*, *XFLR5*, and *MATLAB*, and built a **3.5 lb** lifting-body tricopter capable of autonomous horizontal and vertical flight in **5 months**
- Implemented major design for manufacturing improvements and modularization, reducing part count by **20%** and wing and tail replacement times by **>30%** compared to previous years
- Competed in the international SAE Aero Design Competition, placing **4th overall** out of **22** teams

Licences and Certifications

- **Certified SOLIDWORKS Associate (CSWA)** – Dassault Systèmes - Dec. 2023
- **Recreational Pilot Permit (RPP)** - Transport Canada - Jan. 2023