Claire W. Kim

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EDUCATION

Cornell University | College of Engineering, Sibley School of Mechanical and Aerospace Engineering **Ithaca, NY**
B.S. in Mechanical Engineering *Class of 2028*

SKILLS

SolidWorks, Siemens NX, MATLAB, KiCAD, Altium, Gitlab, STK, Linux, Hypersonics, RF Comms, Space System & Mission Design, Machine Shop Training (End Mill, Lathe)

PUBLICATIONS

- *Sailing to the Stars: Free-Flying Light Sails in Microgravity*, Small Satellite Conference. Salt Lake City, UT, USA, August 2025.
- *Unfurling Light Sails for Advanced Deployment Technology: Sailing to the Stars Mission Mechanical Design*, International Symposium on Space Sailing. Delft University of Technology, Delft, The Netherlands, July 2025.

TECHNICAL EXPERIENCE

Space Systems Design Studio (SSDS), Cornell University **Ithaca, NY**
Alpha CubeSat, Mechanical Subteam – Undergraduate Researcher (3 credits) *September 2025 – Present*
- Develop deployer and light sail for high altitude balloon launch and deployment
- Assemble and integrate mechanical and electrical components and systems

Sailing to the Stars, Mechanical Subteam – Undergraduate Researcher (3 credits) *September 2024 – September 2025*
- Develop and test deployers for light sails with shape-memory alloy frames to understand how nitinol wireframes affect attitude kinematics during light sail deployment in microgravity (aboard the ISS in 2025)
- Iterate CAD design concepts of deployment mechanisms and spacecraft bus structures via 3D printing
- Develop and conduct tests for component verification and validation

US Naval Research Laboratory, Naval Center for Space Technology (NCST) **Washington, DC**
Joint Hypersonics Transition Office (JHTO) Intern, Engineering Technician Student Trainee *Summer 2025*
- Determined test instrumentation anomalies for hypersonic data acquisition
- Resolved anomalies by identifying and implementing solutions
- Develop and execute component verification and validation tests

Mechanical Lead, Engineering Technician Student Trainee *Summer 2023, Summer 2024*
- Collaborate with a team of 7 HS/college students to develop a 3U CubeSat mission with a radio frequency (RF) payload
- Mechanical Lead - created full-scale mock-ups of CubeSat deployables, design CAD models, and deployable solar/antenna systems
- Conduct independent research on RF payloads as the TT&C Radio Lead and Orbit Modeling Lead

Cornell Nexus Project Team **Ithaca, NY**
Drivetrain, Mechanical Subteam *September 2025 – Present*
- Develop and implement design modifications to resolve anomalies in the current drivetrain system
- Design and manufacture new chassis design for the next robot iteration

LEADERSHIP EXPERIENCE

Little STEM Initiative **Great Falls, VA**
Founder and President *November 2022 – August 2024*
- Organize events to promote women in STEM for 7th-9th-grade girls: Women in STEM speaker panel and engineering challenge

Global Impact Council **Virtual**
President and Executive Director *May 2023 – May 2024*
- Led an 8-member Executive Board to develop & implement peer mentoring methods for 25+ high school students in 9+ countries
- Organized and presented at the Global Impact Conference (Oct. 2023), with 3 speakers, and was viewed in 7 countries

AWARDS & HONORS

DoD SMART Scholar **August 2025 - May 2028**
Department of Defense merit-based scholarship for service program.

Girl Scout Gold Award – "Girls in STEM" **September 2023**
Highest award in Girl Scouts, awarded to Scouts who complete an 80-hour minimum global service project.

Crittenberger Award for Community Action and Sports Excellence – Langley HS **May 2024**
Awarded to 2 student-athletes who demonstrate excellence in academics and athletics, and have a significant community impact.

EXTRACURRICULARS & LANGUAGES

SSDS, Society of Women Engineers, Emmaus Road Church, Korean-American Student Association
Languages: Natively Fluent in English, Limited Working Proficient in Japanese, Elementary Proficient in Korean