

ANGUS (SHENG-CHUN) CHANG
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Summary

Mechanical engineering student focused on end-to-end product development, from problem framing to CAD, prototyping. Skilled in hands-on 3D printing and CNC experience, and test planning to close the loop between analysis and hardware. Comfortable with GDT, DFM/DFA, and BOM creation. Proficient in MATLAB and Python for analysis and test automation.

Education

Skills

- **CAD:** SolidWorks, Autodesk Fusion 360, Onshape, ANSYS
 - **Programming:** Arduino, Python, Java, C++, MATLAB
 - **UAV Systems:** FPV drone design/building, Betaflight tuning
 - **Certifications:** Remote Pilot (FAA Part 107), Red Cross Lifeguard/CPR/AED

Research & Patents

- An “Artificial Leaf” generating oxygen and electricity — Patented in Taiwan and Germany
 - Fabric structure utilizing protein denaturation and adhesion — Patented in Taiwan
 - Tunable reflectance based on phase change metamaterial for structural color filter

Experience

Autonomous Drone Project Team (CUAD) Sep 2025 – Present
Mechanical Subteam Member

- Balance lightweight structures with aerodynamic efficiency for UAV performance
 - Design and manufactured drone frames/payloads using 3D printing and CNC machining

Bio-Inspired Fluid Lab, Cornell University Sep 2025 – Present
Undergraduate Researcher — Bat Robot

- Assist with CAD modeling, lightweight wing structure fabrication, and aerodynamic optimization to replicate bat flight mechanics.

Cornell University Sep 2024 – Jan 2025
Undergraduate Researcher — Clustering Greenland Seismological Data

- Cluster earthquake data from Greenland using AI machine learning

Achievements

- Regeneron Science Talent Search Scholar, 2023
 - ISEF 1st Place Chemistry Special Award, 2022
 - Columbia Business School Venture for All Model Entrepreneur Competition, 1st Place, 2023
 - Published in *International Journal of High School Research*, Vol. 5, Issue 3