

# 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

**Cornell University**, Ithaca, NY  
B.S. Mechanical Engineering

Expected May 2027

## 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)**  
*Mechanical Subteam Member*

Sep 2025 – Present

- 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**  
*Undergraduate Researcher — Bat Robot*

Sep 2025 – Present

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

**Cornell University**  
*Undergraduate Researcher — Clustering Greenland Seismological Data*

Sep 2024 – Jan 2025

- 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