

# Yang Sen (Liam) Lin

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## Education

**National Yang Ming Chiao Tung University (NYCU)** Sep 2021 – Dec 2025 (expected)  
B.S., Mechanical Engineering & Computer Science (cross-disciplinary) GPA: 4.04/4.3 (last 60), 3.85/4.3 (overall)  
Ranking: 16/116 (13.8%)

## Publications

**See, Point, Fly — a training-free vision-language UAV navigation framework. CoRL 2025**  
Chih Yao Hu\*, **Yang-Sen Lin\***, Yuna Lee, Chih-Hai Su, Jie-Ying Lee, Shr-Ruei Tsai, Chin-Yang Lin, Kuan-Wen Chen, Tsung-Wei Ke, Yu-Lun Liu  
\* equal contribution

## Work & Research Experience

**NYCU Computational Photography Lab** Sep 2024 – Present  
*Undergraduate Researcher* Hsinchu, Taiwan

- Research skills: paper survey and reimplement, paper writing (See, Point, Fly), Spatial math problem-solving.
- Engineering skills: simulator-to-real-world system design, experiment design, and evaluation design.

**Wolley Inc.** Jul 2024 – Aug 2024  
*Firmware Engineer Intern* Hsinchu, Taiwan

- Optimized CXL Type-3 (HDM) integration; reduced host bandwidth pressure; improved I/O efficiency.
- Built C diagnostics/profiling for throughput/latency.

**Google Developer Student Club (GDSC) NYCU** Jul 2024 – Jun 2025  
*Organization Lead* Hsinchu, Taiwan (Hybrid)

- Led GDSC NYCU for one year, managing a team of 24 members across five departments. Oversaw 6 AI/Software Engineering project teams and organized over 10 technical events, including software development workshops and technical sharing sessions.

## Projects

**See, Point, Fly — Learning-Free VLM UAV Navigation** Nov 2024 – Aug 2025

Zero-shot language-guided UAV control. See, Point, Fly (SPF) enables UAVs to navigate to any goal based on free-form natural language instructions in any environment, without task-specific training. *Skills:* Python, mss, Matplotlib, VLM.

**Vision-based UAV Autopilot** Sep 2023 – Dec 2023

Build autonomous Tello drone: detect ArUco, navigate marker course, follow black line without backtracking, and land precisely on final marker. *Skills:* Python, OpenCV, NumPy, djitellopy (Tello), PID control, camera calibration, morphology/edges, YOLOv7 (GPU).

**C++ Flappy Bird (SDL)** Sep 2023 – Nov 2023

Built a C++ Flappy Bird game using SDL libraries with object-oriented design, optimized physics, audio integration, and cross-platform compatibility. *Skills:* C++, SDL, game loop, OOP

## Awards & Extracurricular

- **Academic Achievements Award** — Top 5% (NYCU) 2023 Fall
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- **Taipei Metro Hackathon** — 2nd Place & Popularity Award (among 92 teams) May 2024
- *Leadership/Activities:* Swimming Team (3y), GDSC Lead (1y), Guitar Club Instructor (1y)

## Skills

**Languages:** Python, C/C++    **AI/ML/Robotics:** OpenCV, YOLO, VLMs, control (PID)  
**Systems/Firmware:** CXL Type-3, HDM concepts, embedded profiling    **Tools:** Linux, Git, SDL  
**Strengths:** Algorithm optimization, computer vision, robotics programming, research, team leadership