Yang Sen (Liam) Lin

tommy60718.en10@nycu.edu.tw | github.com/tommy60718 | linkedin.com/in/

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)

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 reimplementation, 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*
SDL graphics/audio; physics+collision; jitter fix via `SDL_GetTicks()`; latency 50%→<5%; OOP refactor — *Skills:* C++, SDL, game loop, OOP

Awards & Extracurricular

- **Academic Achievements Award** — Top 5% (NYCU) 2023 Fall
- **Academic Achievements Award** — Top 5% (NYCU) 2024 Fall
- **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