



## Arthur Lin

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## EDUCATION

**National Taiwan University**  
B.S. in Electrical Engineering  
(Sep. 2021 - Jul. 2025)

**National Experimental High School** (Hsinchu Science Park)

## SKILLS

### Programming Languages:

- C++
- Python

### Technical Skills:

- Origin
- MATLAB
- Linux Bash
- Openai Gym
- Pytorch, Wandb
- Arduino, Raspberry Pi

### Relevant Coursework:

- Computer Networks
- Photonics Workshop
- Machine Learning 1, 2 (Audited)
- Data Structures and Algorithms
- Deep Learning for Computer Vision

### Languages:

- Chinese (Native)
- English (Fluent)
- 1. TOEIC 930 (Gold Level)
- 2. Selected works for the 2021 College Entrance Exam

## PROFILE

I am Arthur Lin, a senior student majoring in Electrical Engineering at National Taiwan University. I am passionate about Computer Vision and Machine Learning, with 16 years of piano-playing experience. My internship at ITRI and special project conducted in NTU Robot Learning Lab have honed my hard skills and soft skills as well. I am eager to apply my skills and knowledge through the master program in professor's laboratory, and I look forward to contribute to impactful research, and grow alongside a dedicated team.

## RESEARCH EXPERIENCE

### DEEP REINFORCEMENT LEARNING

- Research experience in **NTU Robot Learning Lab** for 1 years.
  - Reproduced and validated the performance of Algorithm Distillation models **without access to open-source code**.
  - Identified inconsistencies in the original paper and proposed experimental improvements.
  - Utilized tools such as **Wandb** and **Python debugger** for efficient experiment workflows.
  - Surveyed papers in meta-RL, over-parameterization, and so on.
- Gained skills in perseverance, attention to detail, and systematic problem-solving.

### DIFFUSION-BASED DATA AUGMENTATION

- Conducted a project on diffusion-based data augmentation related to the AI Aquarium, a CES 2023 Innovation Awards honoree during my internship at the **Industrial Technology Research Institute (ITRI)**.
  - Surveyed related papers and **benchmarked** models.
  - Conceived adversarial-based prompt improvement.
  - Designed experiments with **flowcharts** and **documentation**.
  - Resolved issues in prompt engineering and GPU environment setup.
- I gained experience in data visualization and presentation. Improved the fish detection pipeline, achieving a 20% higher mAP in the target domain via the proposed method.

### PHOTONICS WORKSHOP

- Utilized **MATLAB** with **finite-difference method** for visualizing the physics of low-dimensional semiconductors
- Represented the deep-level transitions Poisson distribution of luminescence spectroscopy for semiconductors using **MATLAB**

## OTHER EXPERIENCE

### TEMPLATE WORK IN COMPUTER NETWORKS

- My work on **socket programming** was selected as a template for future students. I not only focused on coding but also dedicated time to refining the report and making the key concepts clear and accessible.

### THE 36TH DIRECTOR OF NTU PIANO CLUB

- Jointly organized a **public performance** with the piano club of the National Taiwan University of Science and Technology.

### INTERNATIONAL STUDY GROUP

- Participated in NTU x Kyushu Institute of Technology **International Study Group Project** in 2022.
- Actively proposed follow-up suggestions and authored an interview paper exceeding **10,000 words** after the event.