



# Kiwi, Kritarath THIPSOONTHONSAK

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## Summary

Industrial & Systems Engineering student at PolyU with experience in both corporate and startup landscape. Combines strong technical skills with sharp communication and leadership experience proven in managing cross-functional teams across diverse environments.

## Experience

**Robotics Intern** June 2025 - Present  
**Mangdang Technologies Co., Limited, Hong Kong**

- **Hardware Design:** Designed 3D-printed enclosures for HeySanta, an AI-powered voice toy and Micropupper, a miniaturized Minipupper. Responsible for aesthetic design and hardware-component integration
- **Web & Media:** Built the HeySanta Kickstarter landing page; led creative production including storyboard, video editing, photography, and advertising assets for the product launch campaign

**Data & AI Engineering Intern** June 2024 - July 2024  
**National Digital ID (NDID), Thailand**

- **Data Engineering:** Wrote Python scripts to identify and remove duplicate records across a 5M+ entry MongoDB database, reducing storage and operational costs. Then deployed Redash locally as a dashboard to visualize real-time authentication data and system metrics from MongoDB
- **AI / LLM:** Initiated a RAG-based AI customer service system, ingesting customer email history and internal API documentation to automate responses for customer service.

## Education

**Bachelor of Engineering (Honours) in Industrial and System Engineering** Sept 2024 - Present  
The Hong Kong Polytechnic University (PolyU)  
*wGPA: 3.56/4.3*

## Certifications

**Certified SOLIDWORKS Associate (CSWA)** 2025  
Tangix Design & Development AB

## Skills

**Productivity:** MS Office, Google Suite, Notion  
**Coding:** MS Azure, Google Cloud SDK, MongoDB, Git, Python (Pandas, Numpy)  
**CAD:** Solidworks, Fusion

**Creative Work:** Canva, Adobe CC (Photoshop, Illustrator, Lightroom, Premiere pro), Blender, DaVinci Resolve, Apple Creator Studio(Final Cut Pro, Pixelmator)

## Leadership & Activities

### **President**

**Association of Thai Students in Hong Kong SAR and Macau SAR, Hong Kong**

August 2025 - Present

- Restructured the organization: implemented project-based system; introduced Google Suite and Discord as Productivity and Communication Platform; standardize workflows and improve cross-team visibility
- Programme Manage: oversee 5+ concurrent projects simultaneously: from large-scale events, inter-organizational partnerships, sponsorship, financial operation, and web-development

### **Student Ambassador**

**PolyU Global Engagement Office, Hong Kong**

August 2025 - Present

- Act as the liaison between PolyU and Thai secondary schools — coordinating visit schedules, managing logistics, and representing the university to external stakeholders

Travelled to Thailand 2 times for a 1-week school tour; delivered speeches and presentations to high school students to promote PolyU

- Supported on-campus initiatives including welcoming academic counsellors and assisting incoming freshmen on arrival day at the airport

## Project & Research Experience

### **Development of an IoT-Based Knee Support System for Fall Injury reduction in Elderly**

2022 - 2023

- Developed a prototype with ESP32 and MPU 6050. Recorded own data and use machine learning to study fallings patter to trigger an Air cartridge while, to releaser CO2 filling the Airbag system to reduce injury relating to fall.
- First Placed in VU Hackathon 2022, awarded with 100,000 THB
- Finalist at the the National Round in SIC 2023 Thailand

2022 - 2023

### **Study of the optical logic gates using the Mach-Zehnder interferometer**

- Designed Logical gates with optical techniques. Successfully created AND, OR, XOR, NOT Gate
- Oral and Poster Presentation in MWIT Open house