

Tzu Yun Ariel Shann

Machine Learning Engineer | Applied AI & Research Engineering

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🚩 Taiwan 📍 Hsinchu City, Taiwan

PROFILE

Software Engineer with 5+ years of experience across applied AI systems, research engineering, and data-driven software development. Background in reinforcement learning, computer vision, and machine learning research, with publications at NeurIPS, IJCAI, and CoRL. Experienced in building ML prototypes, data pipelines, and analytics systems across startup and research environments. Particularly interested in applied ML roles that bridge research and real-world systems.

PROFESSIONAL EXPERIENCE

Delivery Engineer (Applied AI) Sep 2025 – Present | UK (Remote)

Virtual Science AI

- Built and maintained production data and AI pipelines for pharmaceutical clients, covering data ingestion, transformation, transcription, summarization, analytics, and downstream reporting.
- Integrated client CRM and enterprise systems with internal AI/analytics platforms, including secure API-based integrations with Salesforce/Veeva environments.
- Designed and implemented analytics and monitoring tools to track platform usage and engagement.
- Worked directly with pharmaceutical clients to translate ambiguous business requirements into technical solutions.
- Delivered **110+ client projects** across advisory boards, medical affairs, and social listening.

Software Engineer Feb 2024 – Apr 2025 | USA (Remote)

Phazemos 

- Built Python-based automation and data-processing tools to streamline internal workflows and reduce manual operational work.
- Developed custom Salesforce Apex workflows and business logic to automate sales operations and activity tracking.
- Designed data pipelines integrating multiple internal and external data sources into client-facing analytics dashboards.
- Led data preprocessing, analysis, and visualization initiatives used by leadership to inform business strategy.
- Built workflow automations using Python, Make, Airtable, and ClickUp across internal operations.

AI Engineer Oct 2022 – Feb 2023 | Seoul, South Korea (Remote)

Onoma AI 

- Led development of computer vision components for an AI-driven webtoon generation platform
- Implemented generative and diffusion-based models to support automated visual content generation workflows
- Built and evaluated object detection pipelines to support asset generation and scene composition
- Worked with PyTorch and Hugging Face ecosystems to prototype and deploy experimental ML components

Research Intern May 2020 – Nov 2020

RBC Borealis 

Toronto ON, Canada (Remote)

- Conducted literature survey in the area of reinforcement learning and its applications in fintech
- Improved exploration strategies for reinforcement learning algorithms in terms of sample efficiency, under the guidance of Dr. Ruitong Huang and Dr. Pablo Hernandez Leal

Full-Time Research Assistant Jan 2017 – Aug 2018 | Hsinchu City, Taiwan

ELSA Lab, National Tsing Hua University 

- Conducted research in reinforcement learning and robotic control, developing and evaluating deep RL exploration algorithms.
- Designed novel exploration strategies addressing sample efficiency and diversity in deep reinforcement learning.
- Published research at NeurIPS, IJCAI, CoRL, and AAMAS.

Software Engineer Intern Jul 2016 – Sep 2016 | Hsinchu City, Taiwan

MediaTek 

- Designed and developed an internal tool for testing and profiling camera sensors using C/C++

EDUCATION

University of British Columbia

2018 – 2022 | Vancouver BC, Canada

MSc in Computer Science

- Co-supervised by Prof. Leonid Sigal and Prof. Michiel van de Panne, and graduated with a 92.2% GPA
- MSc Thesis: "Reinforcement Learning in the Presence of Sensing Costs"

National Tsing Hua University

2014 – 2017 | Hsinchu, Taiwan

BSc in Computer Science

- Worked as a part-time research assistant to Prof. Chun-Yi Lee, on reinforcement learning, with a GPA of 3.96/4.30.

SKILLS

ML/AI — PyTorch, Tensorflow, sickit-learn, Hugging Face, OpenAI API, AWS Bedrock, Reinforcement Learning, Computer Vision, Generative AI | **Programming** — Python, SQL, C/C++, Java | **Data/Backend** — NumPy, Pandas, DynamoDB, REST APIs | **Cloud/Infrastructure** — AWS, Lambda, Docker, Git | **Tools/Automation** — Cursor, Make, Salesforce, Apex, Airtable, ClickUp

LANGUAGES

Mandarin — Native, **English** — IELTS 8.0

PUBLICATIONS

Reinforcement Learning in the Presence of Sensing Costs 	2022
<i>UBC MSc Thesis</i>	
Adversarial Exploration Strategy for Self-Supervised Imitation Learning 	2019
<i>Conference of Robot Learning (CoRL) (Oral presentation)</i>	
Diversity-Driven Exploration Strategy for Deep Reinforcement Learning 	2018
<i>Neural Information Processing Systems (NeurIPS)</i>	
A Deep Policy Inference Q-Network for Multi-Agent Systems 	2018
<i>International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS)</i>	
Virtual-to-Real: Learning to Control in Visual Semantic Segmentation 	2018
<i>International Joint Conference on Artificial Intelligence (IJCAI)</i>	