# **Che-Jung (Jerry) Chuang**

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## **EDUCATION**

#### University of Maryland, College Park

College Park, MD

M.Eng. in Robotics

Aug. 2025 – May 2027 (Projected)

- Coursework: Embedded Systems, ROS2, Reinforcement Learning, Kinematics, Sensor Fusion, Motion Planning

#### National Yang Ming Chiao Tung University (NYCU)

Hsinchu, Taiwan

B.S. in Computer Science

Sep. 2019 - Jun. 2023

- GPA: 3.7/4.3 (last 60 credits)
- Coursework: Computer Networks, Wireless Networks, Network Programming, Network Architecture & Implementation, CCNA Training

#### WORK EXPERIENCE

STARK TechTaipei, TaiwanPython EngineerMar. 2024 – Jul. 2025

- Built large-scale real-time recommendation pipeline (Azure EventHub + Databricks DLT + Metarank.io), supporting millions of events/day and powering trending, related, and personalized news feeds.
- Developed and maintained backend services (Nest.js, Prisma, PostgreSQL on Azure) to launch production-ready financial news site stock.ltn.com.tw, including data crawling.
- Led enterprise BI agent project: integrated LLMs with HITL workflows, AST validation, and automated regression tests. Boosted query success by 35%, cut token usage by 20%, and launched 1.5 months early.
- Engineered contextual ad-serving system: combined multi-armed bandits (Google Ads API) with NLP-based content—ad relevance scoring. Achieved 20% CTR lift and reduced wasted spend.
- Designed fresh-produce e-commerce recommender: processed raw SQL purchase logs, shifted features from absolute counts to deviation-from-average demand, avoiding over-promotion of staples. Result: homepage-to-cart conversions increased 30%.

#### Academia Sinica, Institute of Information Science

Taipei, Taiwan

Research Intern

Jun. 2022 – Oct. 2022

- Implemented graph-based resource allocation for Social IoT; improved robustness under dynamic topologies by 15%.
- Contributed to SIoT + Metaverse research: co-authored internal reports, evaluated scalability of distributed algorithms, and built simulation environments for testing.

## **PROJECTS**

## Business Intelligence LLM Platform — LLM Agents, Prompt Engineering

Jan. 2024 – Jul. 2025

- Developed agentic BI assistant integrating text-to-SQL, visualization, and reasoning pipelines for enterprise analytics.
- Integrated HITL + AST validation and automated regression suite to ensure reliability across queries.
- Accelerated delivery by 30%, improved success rate by 35%, and reduced cloud costs by 20%.

## **DQN-based Real-time News Recommendation** — Python, PyTorch, Reinforcement Learning

Mar. 2024 – Jul. 2025

- Designed RL-based recommender handling news content churn and cold-start challenges.
- Implemented DQN for ranking, with streaming ETL (EventHub→Databricks DLT) and fallback BM25+Louvain ranking.
- Achieved 20% CTR increase and 15% engagement growth; robust against data drift.

## Smart Meter Anomaly Detection — Python, Time-series, IoT

Jan. 2023 - Jun. 2023

- Built anomaly detection for electricity consumption; engineered ingestion + labeling pipelines for IoT data.
- Applied DTW-based clustering to identify abnormal household patterns with high precision.
- Improved detection efficiency by 25%; scalable to national smart-grid deployments.

### **SKILLS**

Languages: C, C++, Python, SQL

AI/Robotics: ROS2, NVIDIA Isaac, RL (DQN, PPO), Motion Planning, Control Systems, Sensor Fusion, Kinematics

ML/LLM: PyTorch, LangChain, LangGraph, PydanticAI, Text-to-SQL, LLM Agent Design

Platforms: Docker, Kubernetes, Jenkins, Git, Azure, GCP, Linux

Backend: Node.js, Nest.js, Prisma, PostgreSQL