Shih-Yi (Matteo), Soo

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WORK EXPERIENCE

E.Sun Financial Holding Corporation, Ltd   **Taipei, Taiwan**
Machine Learning Engineer   *July 2021 - Present*

· GAI (LLM based) Chatbot

- Designed RAG pipeline and implemented a system leveraging LLM to analyze customer interests in investment scenarios based on periodic financial reports.
- Achieved successful Proof of Concept (POC) validation and showcased the solution at 2024 FinTech Taipei, demonstrating its potential for industry adoption.

· Traditional (BERT based) Chatbot

- Implemented BERT-based models for 12 conversational chatbot service, allowing flexible deployment of custom Questions by using Kubernetes (K8s).
- Deployed a gateway API to enhance the efficiency of maintenance process, handling over a thousand API service calls per month.

· 2024 AI Hackathon: Organizing RAG-focused Competition

- Led a team to organize one of Taiwan's largest RAG competitions, attracting 487 teams and 987 participants, with a two-phase structure challenging participants to apply LLMs and cloud resources to real-world problems.
- Innovated competition scoring by incorporating GPT-4 for automated evaluation, marking the first instance of such technology usage in similar events domestically.

· Text to Speech (TTS)

- Fine-tuned VITS model based on IPA encoding to address cross-lingual issues commonly encountered by speakers, currently supporting 4 languages (Chinese, English, Korean, and Japanese) interleaving.
- Built an in-house TTS service with an impressive real-time factor of 0.3, and organized a self-timbre voice dataset (near 20 hours) to train a prosodic TTS model based on Tacotron2.

· Recommender system

- Developed a mobile app banner recommendation system for 9 million users, leveraging Spark and DeepFM, achieving an AUC of 0.594 and a recall of 0.920 in offline experiments.

Walsin Lihwa Corporation   **Taipei, Taiwan**
Software Engineer - intership   *April 2018 - July 2018*

· Utilized the PageRank algo. and bi-LSTM model to generate concise industrial summaries for factory operations.

TECHNICAL SKILLS

Programming & Development	Python, C++, Java, FastAPI, Git
Machine Learning & AI	PyTorch, TensorFlow, LLM, RAG, Airflow
Cloud & Infrastructure	Google Cloud (GCP), Oracle Cloud (OCI), Linux, Docker

EDUCATION

National Tsing Hua University   **Hsinchu, Taiwan**
M.S. in Computer Science   *2018 - 2021*

Soochow University   **Taipei, Taiwan**
B.S. in Computer Science and Information Management   *2014 - 2018*