

Doris Ying-Ying Cheng

✉ doris82717@gmail.com in [linkedin.com/in/yingying-cheng](https://www.linkedin.com/in/yingying-cheng)  github.com/Yingyingcheng ☎ 628-306-4080

SUMMARY

4+ years of technical experience including web application development, database design, and data processing pipelines. Proficient at the intersection of full-stack development and machine learning.

WORK EXPERIENCE

- Member of Technical Staff** | Taipei City Government Sep. 2019 – July 2024
- Developed and deployed a **Python-based geospatial algorithm** to process remote sensing data, enabling real-time determination. Reduced manual calculation time by 12% and increased point location accuracy.
 - Led **full-stack (React, TypeScript, CSS, Node, and MySQL)** debugging efforts for the department's central web app, ensuring stability and UI/UX excellence for **1k+ active daily users**.
 - Led a **3-person technical team**, overseeing data integrity between field hardware and backend data processing system.
- Graduate Research Assistant (Machine Learning)** | National Taiwan University July 2017 – June 2019
- Engineered a custom **machine learning Python/MATLAB pipeline** for hyperspectral **image classification** using dictionary-based sparse representation. Published a peer-reviewed conference paper [\[Link\]](#).
 - Optimized **classification accuracy to 98.72%** by integrating spectral and spatial features.
- Engineering Intern (Computer Vision)** | Yueda Technology July 2015– Aug 2015
- Implemented feature matching and mosaicking algorithms to optimize resolution for large-scale remote sensing data.

EDUCATION

- San Francisco Bay University** 2024 – present
- M.S. in Computer Science, **Specialization in Web Programming and Data Modeling** – GPA : 3.87/4.0*
- Coursework: Advanced Web Programming, Cloud Computing, Database Systems and Data Modeling, Computer Networks, Software Project Management, and more.
- National Taiwan University** 2017 – 2019
- M.S. in Civil Engineering, **Specialization in Image Processing** – GPA CS-related Class: 4.0/4.0*
- Thesis: Hyperspectral Image Classification via Integration of Joint Sparse Representation with Spectral and Spatial Information [\[Link\]](#)
- National Chengchi University** 2013 – 2017
- B.A. in Land Economics (Minor in English) – GPA: 3.73/4.0*

PROJECTS

- AI Newsreader & Journalist** – Web app – [\[Summary\]](#)[\[GitHub\]](#) Aug. 2025 – Dec. 2025
- Developed a cloud-native AI news-to-video web app using **React/Node/Express, Docker, and Google Cloud Platform (GCP)** that aggregates news feeds and utilizes **HeyGen AI** to generate automated video news reports.
 - Deployed and scaled containerized microservices on **Google Kubernetes Engine (GKE)** with **Ingress-based load balancing** and **Horizontal Pod Autoscaling (HPA)** to ensure high availability.
- Foodie Diary (AI Calorie Calculator)** – Web app – [\[Link\]](#)[\[GitHub\]](#) Oct. 2025 – Dec. 2025
- Developed a **React/TypeScript** meal tracker featuring an AI analysis pipeline
 - Integrated **OpenAI's GPT-5 API** to instantly generate nutritional breakdowns from user-uploaded food images.
- MBTI Personality Assessment Platform** – Web app – [\[GitHub\]](#) Mar. 2025 – May 2025
- Built a full-stack **React/Node/Express** app featuring a RESTful API to orchestrate assessment logic and data retrieval.
 - Designed a normalized **MySQL** database schema for efficient storage of historical results and implemented **JWT-based authentication** to ensure stateless, secure user sessions.

SKILLS & COURSES

Languages: *Proficient:* Python, JavaScript (ES6+), TypeScript, SQL, HTML/CSS; *Familiar:* Java
Frameworks and Tools: React, Node.js, Express, Docker, Kubernetes, Google Cloud Platform (GCP), Git, Pandas, NumPy, Scikit-learn, TensorFlow.