

Doris Ying-Ying Cheng

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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.