Pei-Yu (Lucy) Chen

Education

Master in Computer Science (Align)	Sep. 2024 - Dec. 2026
Northeastern University, Seattle, WA	
Bachelor in Economics	Sep. 2018 - Aug. 2022
National Taiwan University, Taipei, Taiwan (NTU, ranked #1 in Taiwan)	

- Relevant Courses
  - Statistical Learning and Deep Learning (A+)
  - Data Science and Social Inquiry (A+)
- Exchange Program: Department of Economics, University of Mannheim, Germany   Feb. 2022 - Jun. 2022

Projects

Object-Oriented Design Team Management for Roles, Status, and Members [Python][Code]   Oct. 2024

- Constructed 4 classes to enable interactive team management with player validation, FIFO benching, and roster display
- Developed validation checks to ensure correct inputs and prevent improper and duplicate modifications
- This program can also be applied to other management settings such as project teams and school clubs

Responsive Personal Website [HTML, CSS, JavaScript] [Website]   Oct. 2024

Housing Prices Prediction with Street Scenes [Python] [Code]   Sep. 2021 - Jan. 2022

- Incorporated the refined street scene features into a housing price prediction model and researched on the relationship between housing prices and street scenes
- **Image Request:** Requested street images from Google Static Street View API and extracted image features
- **Model Construction:** Applied a pre-trained VGG16 model (convolutional neural network (CNN) architecture) to extract image features, ensuring the generality by freezing earlier layers and excluding the last layer
- **Optimization:** Refined the extracted features (dimension reduction) by parameter search loops and evaluating with Random Forest Regression
- **Utilized Python packages:** Requests, PIL, Tensorflow, Pytorch, Scikit-Learn, Pandas

Awarded Project

Y.L. Lin Hung Tai Education Foundation – NTU Scholarships   Jul. 2021 - Sep. 2023

- Built a bilingual website (Bahasa Indonesia, Chinese) [Website] providing tutorials, quizzes, and a user service chatbot
- Supported Indonesian caregivers in Taiwan in developing their professional skills
- Marketed the website on social media achieving 5000+ views within a week
- Scholarship of NTD 450K (≈USD 15K), sponsoring my social initiative and international exchange

Professional Experience

Application Consultant   Aug. 2022 - Sep. 2023
IBM Consulting Taiwan, Customer Transformation (Banking Industry Focus)

- Managed documentation and development of 20+ crucial functions of Mobile Bank, such as Account Balance, Transaction Records, Currency Exchange Rates, Credit Card Installment Payment
- Collaborated with 6 Developers to design the system given client-side APIs and optimized database operations
- Cooperated with 4 UI/UX Designers to craft functional and user-friendly mobile banking interfaces
- Facilitated communication across 2 departments on client side with 10+ internal developers and designers

QA Intern   Jul. 2021 - Jan. 2022
Shopee Taiwan, Operations - Tech Team

- Supported to the supply chain platform development through Product Requirements Document enhancements
- Analyzed data with nested SQL queries, contributing to informed decision-making

Leadership & Service

President   Aug. 2019 - Feb. 2020
NTU Symphony Orchestra (88 members)

- Initiated a 15-day Europe Concert Tour, sponsored by alumni and companies (canceled due to Covid-19)
- Hosted a concert at the National Concert Hall [Video] with 1,000 attendees, generating NTD 300K (≈USD 10K)
- Organized on-campus activities: orientation, Christmas activities, and a charity performance at NTU Hospital

Volunteer   Feb. 2019 - Aug. 2019
NTU Shanfu (organizing educational camps during summer/winter vacation in mountain areas)

- Created materials and organized activities for a tribal community in Taitung County
- Lectured science classes during a two-week summer camp for 20 aboriginal children