Wan-Xuan Zhu

+886-909-561-285 | wxn.zhu@gmail.com | linkedin.com/in/Wan-Xuan-Zhu

EDUCATION

National Taiwan University   Sep. 2021 – Jun. 2023
M.S. in Graduate Institute of Networking and Multimedia   Taipei, Taiwan
- Thesis: Developed the music pitch detection system in collaboration with the National Symphony Orchestra.

EXPERIENCE

Research Assistant, National Taiwan University   Mar. 2021 – Sep. 2021
Python, Swift, InfluxDB, Git / Python, Tensorflow, CNN   Taipei, Taiwan
- Reduced manual data collection workload by 99% from 360 times to 1 time a month for 1,767 patients at NTUH.
  * Developed the automated psychiatric patient monitoring system with frontend, server-side backend APIs and smartwatch integration.
- Reduced the preprocessing workload by 99% from 3 days to 5 minutes for the Osteoarthritis research.
  * Developed an AI-based detection and image cropping system by training a deep learning model.

Software Engineer, Colatour Travel Service Co., Ltd   Jan. 2018 – Mar. 2020
Lead iOS Developer, Swift, C#, .NET, MS SQL Server, Git, MVP   Taipei, Taiwan
- Led a team of 3 engineers to develop a B2C e-commerce mobile app with 100+ pages and 146,497 downloads.
- Developed a mobile communication app for 1,191 colleagues.
- Involved in the full software development lifecycle, from design, development, App Store deployment, user analysis, and maintenance to feature addition.

Freelance Developer   Project-Based
Python, MS SQL Server / Ruby, Jekyll, HTML
- Developed the AI-based research scoring desktop platform for Industrial Technology Research Institute (ITRI).
- Developed the company profile website for TwinAI.

Independent Project (Ongoing)   Present
Golang, Gin, MySQL, AWS, Docker, Git
- Developing a concert seat view platform that helps users evaluate stage visibility from different seats and venues.

PROJECTS

Mobile App, Backend, Python, Flask, Git
Speech Emotion Recognition iOS App: Real-Time Audio Analysis with Flask Backend for Data Processing

Desktop App, C#, Python, Unity
Real-Time Gesture Recognition AR App: Detect and Track Motion to Control 3D Models via Camera

Mobile App, Backend, C#, Python, MySQL, Unity
Virtual Reality Game Android App: Escape Room Adventure Game

Website App, Backend, Java, MySQL
Online Game for Pet Adoption, Training, and PvP Battles

Portfolio: youtube.com/@WanXuanZhu (Additional projects included)

PUBLICATIONS

Co-Author, Tensorflow, CNN "Successful Real-World Application of an Osteoarthritis Classification Deep-Learning Model Using 9,210 Knees—An Orthopedic Surgeon's View", J. Orthop. Res., 2022
Co-Author, Pytorch, Transformer "Training a Deep Contextualized Language Model for International Classification of Diseases, 10th Revision Classification via Federated Learning: Model Development and Validation Study", JMIR Med Inform, 2022

SKILLS

Languages: C++, Python, Java, Ruby, Swift, C#, Golang, JavaScript, HTML/CSS
Tools and Libraries: Git, SourceTree, Slack, Flask, MySQL, Microsoft SQL Server, Postman, Firebase (for Crashlytics, Notifications, and Distribution), Google Analytics, Docker, AWS, Unity, Tensorflow, Pytorch