

Wan-Xuan Zhu

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EDUCATION

National Taiwan University <i>M.S. in Graduate Institute of Networking and Multimedia</i>	Sep. 2021 – Jun. 2023 <i>Taipei, Taiwan</i>
Fu Jen Catholic University <i>B.B.A. in Information Management</i>	Sep. 2013 – Jun. 2017 <i>New Taipei City, Taiwan</i>

MASTER THESIS

Pitch Detection System Based on Discrete Cosine Transform <i>Advisors: Feipei Lai, Ph.D., Yiju Chen, M.S.</i>	Sep. 2021 – Jun. 2023 <i>Taipei, Taiwan</i>
<ul style="list-style-type: none">Applied audio digital signal processing techniques to achieve accurate pitch evaluation in music.Collaborated with the National Symphony Orchestra to enhance mobile app's functionality and performance.	

EXPERIENCE

National Taiwan University, Medical Informatics Lab <i>Research Assistant</i>	Mar. 2021 – Sep. 2021 <i>Taipei, Taiwan</i>
<ul style="list-style-type: none">Developed a Psychiatric Patient Monitoring System with Frontend, Backend, and Smartwatch Integration<ul style="list-style-type: none">Eliminated 99% of manual monitoring workload for 1,767 patients at NTUH by designing the system workflow, integrating the mobile app, wearable smartwatch detection, and server-side backend APIs.Contributed to research on Osteoarthritis Classification using Deep Learning<ul style="list-style-type: none">Reduced the preprocessing workload by 98.6% by training a YOLOv4-based object detection model.	
Colatour Travel Service Co., Ltd <i>Software Engineer, Lead iOS Developer</i>	Jan. 2018 – Mar. 2020 <i>Taipei, Taiwan</i>
<ul style="list-style-type: none">Led a team of 3 engineers in developing the B2C e-commerce mobile app, with over 100 functional pages and 146,497 downloads.Developed an internal communication system mobile app for 1,191 company colleagues.Built a B2B mobile app featuring in-app webpage to support business processes.	

PROJECTS

Mobile App, Frontend, Backend Speech Emotion Recognition iOS App: Real-Time Audio Analysis with Flask Backend for Data Processing
Desktop App, Computer Vision Real-Time Gesture Recognition App: Detect and Track Hand and Motion Gestures to Control Models via Camera
Mobile App, Game, Frontend, Backend Virtual Reality Game Android App: Escape Room Adventure Game
Web Application, Game, Frontend, Backend Online Game for Pet Adoption, Training, and PvP Battles
Portfolio: youtube.com/@WanXuanZhu

PUBLICATIONS

Co-Author , “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 , “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

PROFESSIONAL SKILLS

Languages: C++, Swift, Python, Java, JavaScript, HTML, CSS
Tools and Libraries: Git, Bitbucket, Slack, Flask, MySQL, Postman, Firebase, Google Cloud Platform