# **ZIJIAN WANG**

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Dalian University of Technology

#### **EDUCATION**

#### •Dalian University of Technology

Bachelor's Degree in Software Engineering

Osaka University

FrontierLab Exchange Program

Sep. 2021 - Jun. 2025 GPA: 87.6/100.0

Sep. 2024 - Feb. 2025 Project Evaluation: A

## TECHNICAL SKILLS

Languages: English (IELTS 7.0), Japanese (Fluent) Programming Languages: Python, C/C++, Java, SQL

Development Tools: Cursor, Android Studio, Trae, Git, Jupyter, Mermaid, Canvas

Documentation: LaTeX, Markdown, Endnote

## RESEARCH EXPERIENCE

#### •Smartphone-Based Grading Assessment of Hand Tremor in Parkinson's Disease

Apr. 2024 - Jun. 2025

Personal Project, supervised by Dr. Junxin Chen, Intelligent Systems Research Institute, DUT

Dalian, China

- Captured hand tremors through the accelerometer and gyroscope inside a smartphone, and used various classifier based on ML for comparative evaluation, ultimately achieving the best grading accuracy over 90% through an Ensemble Voting model, and integrated the system into a user-friendly Android application
- Developed a multimodal Parkinson's data collection application integrating multiple indicators including tapping, voice, and gait posture

### •Emotion-Aware Virtual Health Agent for Personalized Healthcare Support

Sept. 2024 - Feb. 2025

Personal Project, supervised by Dr. Takato Horii, Osaka University

Osaka, Japan

Developed a virtual health assistant with user-friendly front-end, integrating local large models and online APIs, providing
multimodal inputs, interruptible voice interaction, emotion-based feedback, and showcased via a Frontierlab project poster
at Osaka University

#### •Multimodal Odometry Estimation

Aug. 2023 - Aug. 2024

Group Member, supervised by Dr. Xinchen Ye, Multimodal Lab, DUT

Dalian, China

- Developed an odometry estimation model based on DeepVIO with the addition of a LiDAR modal pipeline
- Introduced a decision network responsible for adaptive decision-making on inputs from the visual and LiDAR modalities to optimize the model's robustness and accuracy in harsh environments

#### •Multi-agent Reinforcement Learning Optimization

Jul. 2023 - Aug. 2023

Group Leader, supervised by Dr. Pietro Lio, University of Cambridge

Cambridge, UK

- Developed a multi-tier communication architecture, with high-level agents responsible for global optimization, and low-level agents for achieving local optima
- Created a predator-prey model based on OpenAI Gym environment, introduced MADDPG algorithm, and received an A-grade evaluation from the advisor

### PROJECTS EXPERIENCE

## •Personal Image Retrieval System Based on BLIP

Mar. 2024 - Jun. 2024

Group Leader

Dalian, China

- Developed a personal image retrieval system based on BLIP and introduced a confidence assessment system for it
- Responsible for backend coding work and reporting to the supervisor on project progress and outcomes at the final presentation

### EXTRACURRICULAR EXPERIENCE

## •President, Chinese Calligraphy Club, DUT

Sep. 2022 - Aug. 2023

- Organized offline calligraphy gatherings, regularly conducted calligraphy teaching activities, and invited off-campus calligraphers to provide guidance
- Collaborated with art societies such as the Book Society and Hanfu Society to host large-scale cultural events showcasing traditional Chinese cultural rituals

### •Volunteer, Student Assistance Program, DUT

Sep. 2021 - Feb. 2022

- Established study groups to assist students with C programming, mathematics, and Japanese studies, accumulating over 60 hours of online and offline tutoring, resulting in an average score improvement of over 10 points for participants

#### AWARDS

•Excellent Student of the Year, DUT

2021-2022

•Academic Scholarship, DUT

2021-2022

•Cultural and Sports Scholarship, DUT

2021-2022