Linsen Gao

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Portfolio: linsen-gao-457.github.io
Github: github.com/Linsen-gao-457

Education

University of Waterloo Sep 2024 - Present
Master of Engineering - Electrical and Computer Engineering *Waterloo, Canada*

Nanjing University of Posts and Telecommunications Sep 2020 - Jun 2024
Bachelor of Engineering - Telecommunication Engineering ***(GPA: 90.04/100, TOP 6.7%)*** *Nanjing, China*

Skills

Programming Language: Python, MATLAB, C, Verilog, Java

Language: Mandarin(native), English(proficient)

Research

SA-CNN Emotional Detection System for Facial Expression Jan 2024 - Jun 2024
Supervised by Prof. Minghai Xu *Nangjing, China*

- Integrated convolutional neural networks (CNN) with self-attention mechanisms to enhance model performance, achieving an overall system accuracy rate of **85%**
- Implemented a YOLO-based model for precise face detection to accurately isolate faces from images in various environments

EEG/EMG-based Emergency Brake Prediction Jan 2022 - Jun 2022
Supervised by Prof. Liya Huang *Nangjing, China*

- Collaborated with a cross-disciplinary team to integrate multiple data sources, including an EEG cap, smartphone accelerometer, and a homemade FPGA for muscle contraction testing
- Implemented a weighted fusion algorithm by using multiple data sources to predict final results, showcasing proficiency in algorithm development and integration
- Awarded 2023 Outstanding Conclusion of Student Innovation and Entrepreneurship Project **(TOP 1%)**

Experience

Software Engineering Intern at ENN Group Jul 2023 - Sep 2023
GPT Collaborative Knowledge Base Module for Enhanced Q&A *Nanjing, China*

- Independently trained Transformer-based model for one of China's largest energy companies
- Achieved 90% answer accuracy rate for company's confidential proprietary knowledge base
- Integrated deployed model with company's internal messaging platform

Project

Word Guessing Game Development Sep 2021 - Oct 2021

- Developed an interactive word guessing game in C
- Developed a character matching algorithm that updates correct guesses and tracks errors in a word guessing game, with random word selection and limited attempts
- Implemented file I/O for persistent player rankings

Android Timetable Design App Development Nov 2023 - Dec 2023

- Developed application logic for course scheduling and instructor details
- Designed a user-friendly interface using XML
- Integrated SQLite for persistent data storage, ensuring data security and reliability

Awards

Outstanding Conclusion of Student Innovation and Entrepreneurship Project **(TOP 1%)**	May 2023
School-level first-class scholarship **(TOP 5%)**	Jun 2024
School Class Club Contribution Award	Sep 2021
The Second Prize of Electronic Design Contest for College Students **(TOP 5%)**	Jan 2021
Provincial Second Prize in Advanced Mathematics Contest **(TOP 5%)**	May 2021