**Zhenghao He**

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**EDUCATION**

**Tongji University Shanghai, China**

*Bachelor of Engineering in Computer Science and Technology Sept 2020 – July 2024(expected)*

GPA: 4.35/5.00, 88.50/100

Core courses: Pattern Recognition, Machine learning, Operating Systems, Data Structures, High-Level Language Programming, Discrete Mathematics, Formal Languages and Automata

**PUBLICATIONS**

* **Zhenghao He**, Ruifan Chen, Yayue Hou, Fei Xie, Xiaoliang Gong, and Anthony G. Cohn. “A Music Labeling Model Based on Traditional Chinese Music Characteristics for Emotional Regulation.” *In Proceedings of the 2023 12th International Conference on Software and Computer Applications*, pp. 53-58, February 2023.
* Fei Xie, Xiaoliang Gong, **Zhenghao He**, Tongqi Wu, Yan Lu, and Mohan Zhao. “Alzheimer's Disease Early Diagnosis Based on Resting-State Dynamic Functional Connectivity.” *In Proceedings of the 2023 12th International Conference on Software and Computer Applications*, pp. 356-361, February 2023.
* Mohan Zhao, Lu Pang, Yan Lu, Fei Xie, **Zhenghao He**, Xiaoliang Gong, and Anthony George Cohn. “Conditional Domain Adaptation Based on Initial Distribution Discrepancy for EEG Emotion Recognition.” *CLIP@MICCAI 2022: Clinical Image-Based Procedures,* pp. 72-81, January 2023.
* **Zhenghao He**. “Comparison Of Different Machine Learning Methods Applied To Obesity Classification,” *2022 International Conference on Machine Learning and Intelligent Systems Engineering*, pp. 467-472, November 2022.

**PROJECTS**

**BrainBeats - a Portable Brain-Computer Interface Device for Fatigue Detection Shanghai, China**

*Team Leader; Advisor: Assoc Prof. Xiaoliang Gong, Tongji University Feb 2023 – April 2024*

* Designed and conducted fatigue tests, and organized participants to collect data for the experiment.
* Preprocessed the collected data by applying a bandstop filter, and calculated the power spectrum characteristic values using the Hamming window and Fast Fourier Transform (FFT)
* Utilized SVM and LSTM for prediction and conducted ten-fold cross-validation
* Achieved an accuracy rate of 82.05±4.97% on the most accurate device
* Awarded as the Shanghai Innovation and Entrepreneurship Training Program

**INTERNSHIP**

**Alibaba Cloud Shanghai, China**

*AI Model Optimization Intern Mar 2024 – present*

* GPU fault prediction algorithm design, GPU abnormal data processing and augmentation
* Research and analysis of AI Agents algorithm

**Digital Center, HaaenClean Group Shanghai, China**

*Digital Engineer Intern Sep 2023 – Dec 2023*

* Apply Isolation Forest to process historical data and identify outlier values to ensure the safety of the detection
* Assist the company in deploying a large language model on-premises for private use

**Shanghai Research Institute for Intelligent Autonomous Systems Shanghai, China**

*Research Assistant for Assoc Prof. Zhongpan Zhu, Tongji University Jun 2022 – Sep 2022*

* Assisted the advisor in preparing PowerPoint slides on the topic of bionic robots.
* Draft a patent under the instruction of the professor – Algorithm of Generating Heat Map for Driver’s Attention

**HONORS & AWARDS**

3rd Prize (School-level), 2023 Excellent Student Scholarship at Tongji University Dec 2023

2nd Prize (National Level), 2022 Embedded System Design Invitational Contest (Intel Cup) *Aug 2022*

Bronze Medal (School-level), China College Students Internet+ Innovation and Entrepreneurship Competition *Aug 2022*

**OTHERS**

**Computer skills:** C/C++, Python, Java, Verilog, Assembler, MS Office

**Languages:** Chinese (Native), English (Advanced)