Ziqiang Wang

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EDUCATION

Doctor of Philosophy Sep 2022 - Jul 2026

Computer Science Concordia University

Relevant Courses: Machine Learning, Deep Learning, Representing Learning

Master of Engineering Sep 2019 - Jun 2022

Communication and Information System Shanghai University

Relevant Courses: Matrix Theory, Optimization Theory and Methods, Computer Vision and Pattern Recognition, Digital Image Processing, Multimedia Information Processing and Coding

Bachelor of Engineering Sep 2015 - Jun 2019

Communication Engineering Shanghai University

Relevant Courses: Data Structure and Algorithm Base, Digital Image Processing, Information Theory and Coding, Probability and Random Processes, Linear Algebra, Digital Signal Processing

PUBLICATIONS

- **Z. Wang**, Z. Liu, G Li, Y Wang, T. Zhang, L. Xu, and J. Wang, "Spatio-temporal self-attention network for video saliency prediction," IEEE Transactions on Multimedia, vol. 25, pp. 1161-1174, 2023. https://ieeexplore.ieee.org/document/9667292
- **Z. Wang**, Z. Liu, W. Wei, and H. Duan, "SalED: Saliency prediction with a pithy encoder-decoder architecture sensing local and global information," Image and Vision Computing, vol. 109, article 104149, 2021. https://doi.org/10.1016/j.imavis.2021.104149
- W. Wei, Z. Liu, L. Huang, **Z. Wang**, W. Chen, T. Zhang, J. Wang, and L. Xu, "Identify autism spectrum disorder via dynamic filter and deep spatiotemporal feature extraction," Signal Processing: Image Communication, vol. 94, article 116195, 2021. https://doi.org/10.1016/j.image.2021.116195

PROJECT EXPERIENCE

Assisted Diagnosis System for Mental Disorders Dec 2020 - Nov 2021

- Project Description: This project entails the collection of eye-tracking data using an eye tracker, under specified eye-tracking paradigms, with the aim of designing algorithms to classify this data for aiding the diagnosis of mental disorders.
- Main Tasks:
  1. Utilizing C#, develop software to facilitate the presentation of eye-tracking collection paradigms, and to invoke an eye tracker for the acquisition and storage of eye-tracking data.
  2. Employing Python, process the collected eye-tracking data, extract distinctive features based on the abnormal eye-tracking characteristics observed in patients with mental disorders, and classify these features using machine learning classification algorithms. (My Contribution)

Fixation Collection System Jul 2020 - Oct 2020

- Project Description: This project involves the collection of human fixations utilizing a camera integrated into a laptop computer.
- Main Tasks:
  1. Utilizing C#, develop a laptop-based client application to capture video footage of a subject's face using the laptop's camera, upload the collected data to a server, and receive and display the processing results from the server.
  2. Employing Python, establish socket communication to receive video data from the client, fine-tune a gaze estimation model, perform gaze estimation, and return the results to the client. (My Contribution)

HONORS & AWARDS

Outstanding Master's Thesis Award, granted by Shanghai Graphics & Image Association	2023.02
National Scholarship for Postgraduates	2021.11
First Prize for Postgraduate Academic Scholarship of Shanghai University	2021.11
Third Prize in "HUAWEI Cup" the 16th China Post-Graduate Mathematical Contest in Modeling	2019.12