

Zhang Erli

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EDUCATION

Nanyang Technological University

Bachelor of Engineering in Computer Science

Specialization: Artificial Intelligence and Data Science & Analytics

GPA: expected first class

Singapore

August 2020-Present

PUBLICATIONS

Towards Explainable Video Quality Assessment: a Database and a Language-prompt Approach

Haoning Wu*, **Erli Zhang***, Liang Liao, Chaofeng Chen, Jingwen Hou, Annan Wang, Wenxiu Sun, Qiong Yan, Weisi Lin

*In Proceedings of ACM International Conference of Multimedia (ACMMM 2023) (*equal contributions)*

Code & Database: github.com/VQAssessment/MaxVQA, Preprint: arxiv.org/abs/2305.12726

Exploring Video Quality Assessment of User Generated Contents from Aesthetic and Technical Perspectives

Haoning Wu*, **Erli Zhang***, Liang Liao*, Chaofeng Chen, Jingwen Hou, Annan Wang, Wenxiu Sun, Qiong Yan, Weisi Lin

*In Proceedings of IEEE International Conference on Computer and Vision (ICCV) 2023 (*equal contributions)*

Code: github.com/VQAssessment/DOVER, Preprint: arxiv.org/abs/2211.04894v3

Exploring Opinion-unaware Video Quality Assessment with Semantic Affinity Criterion

Haoning Wu, Liang Liao, Jingwen Hou, Chaofeng Chen, **Erli Zhang**, Annan Wang, Wenxiu Sun, Qiong Yan, Weisi Lin

In Proceedings of IEEE International Conference on Multimedia and Expo (ICME) 2023

Code: github.com/VQAssessment/BVQI, ICME: arxiv.org/abs/2302.13269

RESEARCH EXPERIENCES

Center for Cognition, Vision, and Learning, Johns Hopkins University

Research Student

July 2023-Present

Supervisor: Prof Alan L. Yuille

- Evaluated how the robustness of a sequentially learning model changes with every new task relative to jointly trained neural models
- Adapted current robustness methods to continual learning setups and analysed whether they improve model robustness when learning continually

Sunstella Foundation, University of Illinois Urbana-Champaign

Summer Research Scholar

May 2023-July 2023

Supervisor: Prof Jimeng Sun

- Worked on MedBind, an AI model combining multiple modalities to generate synthetic patient records to enhance clinical research
- Contributed to PyHealth, a comprehensive deep learning toolkit for supporting clinical predictive modelling

Institute for Infocomm Research, A*STAR

AI Research Engineer

July 2022-June 2023

Supervisor: Dr Huang Weimin

- Conducted insightful research into the field of medical image processing, specifically in mammogram analysis
- Developed a model using weakly semi-supervised learning and transformers to predict breast cancer risk at multiple time points based on traditional mammograms and common risk factors and clinical data

Nanyang Technological University, Undergraduate Research Experience on Campus

URECA student

Aug 2021-June 2022

Supervisor: Prof Lin Weisi

- Identified common factors that lead to bias in facial analysis, e.g., occlusions, pose variation, expressions, etc.
- Evaluated current state-of-the-art face recognition methods on various datasets with bias
- Compared common feature detection and description techniques in occluded datasets