Yiming Zhang | Curriculum Vitae

Ph.D. Candidate
School of Computer Science, University of Nottingham Ningbo China
Supervisors: Ying Weng, Jonathan Lund, Zhuo Chen
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Education

University of Nottingham   **Ningbo, China**
Doctor of Philosophy   *Sep 2020 - Present*
Ph.D. Thesis Theme: Deep-Learning based Automated and Objective Assessment of Operative Skill in Laparoscopic Surgery

University of Melbourne   **Melbourne, Australia**
Master of Information Technology   *Feb 2018 - Dec 2019*

University of Nottingham   **Nottingham, UK**
Bachelor of Science with Honours in Computer Science, First Class   *Sep 2013 - July 2017*

Research Interests

- Surgical Data Science, Surgical Skill Assessment
- Medical Image Analysis
- Explainable Artificial Intelligence, Interpretable Machine Learning
- Deep Learning, Machine Learning
- Multivariate Time Series Classification
- Computer-aided Diagnosis

Publications

Journal Papers

- **Yiming Zhang**, Ke Chen, Ying Weng, Zhuo Chen, Juntao Zhang, and Richard Hubbard, "An Intelligent Early Warning System of Analyzing Twitter Data Using Machine Learning on COVID-19 Surveillance in the US", *Expert Systems with Applications* (*ESWA*), 2022, in Press, DOI:10.1016/j.eswa.2022.116882.

- **Yiming Zhang**, Ying Weng, and Jonathan Lund, "Application of Explainable Artificial Intelligence in the Diagnosis and Surgery", *Diagnostics*, vol. 12, no. 2, p. 237, 2022.

Conference Papers

- Ran Fei, Ying Weng, **Yiming Zhang**, and Jonathan Lund, "Curve based Fast Detail Enhancement for Biomedical Images", *16th International Joint Conference on Computer Vision, Imaging and Computer Graphics Theory and Applications* (*VISAPP 2021*), 8-10 February 2021, Virtual Conference.

Under Review & Preprints

- **Yiming Zhang**, Ying Weng, and Jonathan Lund, "Explainable Artificial Intelligence in Medical Applications: A Survey on Current Trends and Fresh Studies", *under review*.

- **Yiming Zhang**, Ying Weng, Jonathan Lund, and Boding Wang, "Time-Frequency Representation and Vision Transformer for the Automated Assessment of Surgical Skills", *under review*.

Chinese Patents

- Ying Weng, Ke Chen, **Yiming Zhang**, A method and system for rating surgical skills based on explainable artificial intelligence (under application)

Awards and Achievements

- UNNC Doctoral Research Grant (5000 RMB), 2021
- UNNC PhD Scholarship Award - Healthcare Scholarship (492450 RMB), 2020

Professional Activities

- Reviewer for MDPI Sensors
- Reviewer for Journal of Artificial Intelligence Research

Languages

- **English** [Full Professional Proficiency]
- **Chinese** [Native Proficiency]

Misc

- Programming Language –**Python** [good] , C#, Java, JavaScript, Node.js [Basic]
- Knowledge of: **Keras, Tensorflow, PyTorch, Scikit-learn**, Pandas, NumPy, LaTeX, Linux
- Google Scholar: https://scholar.google.com/citations?hl=en&user=WCku-uIAAAAJ
- GitHub: https://github.com/yiming95

References

- **Dr. Ying Weng**
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- **Dr. Jonathan Lund**
  Clinical Associate Professor
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- **Prof. Zhuo Chen**
  Li Dak Sum Chair Professor
  School of Economics
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