

Yu (Yvonne) Wu

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EDUCATION

University of Cambridge

Ph.D. in Computer Science/Machine Learning (Supervisor: Prof. Cecilia Mascolo)
Full Scholarship funded by Nokia Bell Labs

Cambridge, UK
2021–Present

Rice University

M.S. in Electrical & Computer Engineering (Supervisor: Prof. Akane Sano)

Houston, USA
2019–2021

Nanjing University of Posts and Telecommunications

B.S. in Electrical & Computer Engineering
GPA Rank: Top 3%, Presidential Award Recipient and National Scholarship

Nanjing, China
2015–2019

EXPERIENCE

PhD Research at University of Cambridge

Mobile System Research Lab, advised by Prof. Cecilia Mascolo

Cambridge, UK
10/2021–Present

- Developed self-supervised learning algorithm tailored for multimodal data (behavioral and physiological data, audio, etc.), with a focus on irregular and longitudinal time-series data.
- Worked on unsupervised domain adaptation for regression tasks with noisy labels with the application of health sensing and monitoring.
- Delved into the realms of privacy-preserving methodologies, such as federated learning, and focused on enhancing the personalization of machine learning models.

Research Assistant at Rice University

Computational Wellbeing Group, advised by Prof. Akane Sano

Houston, USA
09/2019–03/2021

- Worked on Graph Neural Networks and Semi-supervised learning methodologies to analyze human behavioral signals from wearables. This research aimed to enhance the accuracy of human emotion and well-being prediction.

Research Assistant at Rice University

Scalable Health Labs, advised by Prof. Ashutosh Sabharwal

Houston, USA
07/2020–12/2020

- Developed algorithms leveraging signal processing and convolution attention networks for denoising Photoplethysmography (PPG) signals to extract physiological signals and behavioral features in remote sensing.

PUBLICATIONS

- [1] **Wu, Y.**, Spathis, D., Jia, H., Perez-Pozuelo, I., Gonzales, T. I., Brage, S., Wareham, N., Mascolo, C., “Udama: Unsupervised domain adaptation through multi-discriminator adversarial training with noisy labels improves cardio-fitness prediction”, *Machine learning for Healthcare (MLHC)*, 2023.

- [2] Spathis, D., Perez-Pozuelo, I., Gonzales, T. I., **Wu, Y.**, Brage, S., Wareham, N., Mascolo, C., “Longitudinal cardio-respiratory fitness prediction through wearables in free-living environments”, *npj Digital Medicine*, vol. 5, no. 1, p. 176, Dec. 2022, ISSN: 2398-6352.
- [3] **Wu, Y.**, Spathis, D., Jia, H., Perez-Pozuelo, I., Gonzales, T. I., Brage, S., Wareham, N., Mascolo, C., “Turning silver into gold: Domain adaptation with noisy labels for wearable cardio-respiratory fitness prediction”, *Machine learning for Health (ML4H)*, 2022.

HONORS AND AWARDS

- Travel Award (by DeepMind) MLHC’23 2023
- National Scholarship 2017
- Presidential Award Recipient 2016

TEACHING AND MENTORING

- **Undergraduate Project Supervisor** at University of Cambridge Fall 2023
Earable for Chewing Counting: a Feasibility Study
- **Teaching Assistant** at University of Cambridge Fall 2023
Mobile Health
- **Teaching Assistant** at Rice University Fall 2020
Machine learning for data science (DSCI 303)

SKILLS

- **Programming:** Python, Keras, TensorFlow, PyTorch, Java
- **Knowledgeable In:** Machine Learning, Deep Learning, Mobile Sensing, Mobile Health