

JINGBIAO MEI

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Education

University of Cambridge

Oct. 2022 – 2025

Ph.D. at Machine Intelligence Laboratory Speech Research Group

Peterhouse, University of Cambridge

Oct. 2018 – 2022

M.Eng & BA Information and Computer Engineering

Courses: Statistical signal processing, Statistical machine learning, Deep learning, Computer vision, Optimizations, Computational neuroscience, Computer systems, Business modules

Experience

Artificial Intelligence Research Intern Huawei Cambridge Research Centre

July.2022 – June.2023

- Research and develop production-level **efficient automatic speech recognition (ASR) system**
- Apply model compression techniques to reduce the model parameter of the ASR system
- Explore methods to simplify the model architecture to improve inference latency of the system

Deep Learning Research Intern University of Cambridge

June.2021 – Sept.2021

- Research into **multimodal hateful speech detection systems**
- Experiment on various single stream and dual stream **visual language transformer** models
- Use ensemble learning to create state-of-the-art hateful speech detection models

Deep Learning Research Intern John Hopcroft Centre for Computer Science Shanghai Jiao Tong University

Sept.2020 – Dec.2020

- Research into **fault tolerant neural network architectures**
- Tested various ways of improving robustness by error-correction coding and ReRAM resistance variation
- Developing a novel neural network architecture to handle fault with **Bayesian Methods** and **Neural Architecture Search**
- PyTorch programming, trained hundreds of models on GPU HPC, explored various Deep Learning tasks
- Accepted by DAC2021 as [[BayesFT: Bayesian Optimization for Fault Tolerant Neural Network Architecture](#)]

Web Programmer Jieqi Edge Computing

July – Sept.2019

- Rewrote website using Jekyll to improve efficiency and add functions like download and multi-language. (<https://jieqi.io>)
- Examined and tested the faulty PCB and came up with solutions to fix the boards.
- Tested initial design of the container with 3D printing.
- Took videos and edited using Adobe Premiere to produce set-up tutorial videos.

Publication

- Ye, N., Mei, J., 2021. BayesFT: Bayesian Optimization for Fault Tolerant Neural Network Architecture. 2021 58th ACM/IEEE Design Automation Conference (DAC)

Extra-curricular Activities

Cambridge University Chinese Cultural Society Media Coordinator

March.2019–March.2020

- Took Photos for various events
- Edit freshers' guide and publish to help freshers to fit in university life
- Organise Orientation Camp

Courses

- Deep Learning Specialization deeplearning.ai
- Machine Learning, Mathematics for Machine Learning
- Ai for Medical Diagnose/Prognose

Additional Skills

- Deep Learning Framework (PyTorch, TensorFlow, Keras, PaddlePaddle)
- Programming (familiar with Python, Visual Basic, C++)
- HTML, CSS, Ruby, Markdown, Latex
- Microsoft Office
- CAD Software (Solidworks)
- Adobe Lightroom/Premiere/Photoshop/After Effects