

WANG, YUANBIAO

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EDUCATION

Harvard University

M.Sc. in Data Science

Cambridge, MA

Sep. 2021 – Now

Tsinghua University

B.E. in Software Engineering

Beijing, China

Aug. 2016 – July 2021

- Overall GPA: 3.83/4.0, Ranking: 7/81
- Related coursework: 4.0 GPA in Data Structure, Introduction to Algorithms, Deep Learning, Computer Graphics, Modern Operating Systems, Convex Optimization, Introduction to Database, Mobile App Development, Internet of Things, Frontend Development Practice
- Received **Comprehensive Excellence Award**(top 10%) of Tsinghua University in 2018, 2019 and 2020.

WORK EXPERIENCES

Research Assistant | Harvard CRCS

November 2021 – March 2022

- Responsible for the training and evaluation of state-of-the-art radiology vision model on breast-cancer screening
- Researched effective methods to reduce false positive rate by training a doublecheck model with pathology label

Machine Learning Intern | Xinghui Technology

May 2021 – Jul 2021

- Exploited an algorithm to use RNN and moving average for non-oscillating time series forecasting with power system data and financial data.
- Researched effective methods of multi-task semi-supervised learning to identify abnormal user with labeled and unlabeled data by adding a self-supervised forecasting branch to the RNN model.

Computer Vision Research Assistant | Harvard Visual Computing Group

June 2020 – April 2021

- Modeled white-box test-time data augmentation as a continuous optimization problem over enhancement levels and designed a novel optimization method based on gradient estimation.
- Evaluated our method on the transfer learning task from ChestXRay14 dataset to CheXpert dataset and increased the test AUC from 0.8051 to 0.8058 with 2% of test labels. On CIFAR-100-C dataset, our method reduces the mCE (mean corruption error) from 0.3461 to 0.3278. Preprint available on [My personal page](#)

Deep Learning Research Intern | Tsinghua iMoon Lab

Feb 2019 – May 2019

- Improved Hypergraph Neural Networks(HGNN) for affective computing by adding a modality-wise attention block and a handcrafted input feature with regard to individual specification
- Developed PyTorch training pipeline and experimented on the DEAP and ASCERTAIN dataset with 2.68% and 5.09% increases in accuracy respectively. Preprint at <https://agil27.github.io/hgnn.pdf>.

SELECTED PROJECTS

HamSwing: A fun 2D parkour Game (First prize work in Tencent Wechat app development contest 2020)

- <https://github.com/agil27/hamswing>.

CUDA collision detection with cubical octree

- <https://github.com/agil27/https://github.com/agil27/CUDA-Collision-Detection>.

Robust Lumbar Cancellous Bone Segmentation

Advised by Assistant Prof. Linmi Tao

- <https://github.com/agil27/MedicalSegmentation-Jittor>.

THU-Voluntary Plus: An online platform for voluntary activity registration at Tsinghua

- <https://github.com/agil27/THU-voluntary-plus>.

TECHNICAL SKILLS

Programming Languages: Python, Java, C/C++, SQL, JavaScript, HTML/CSS

Professional Software: PyTorch, SciKit-Learn, NumPy, Vue, Flask, Git, LaTeX

Language: English(fluent), Chinese(native)