YIJUN BIAN

✉ University of Science and Technology of China (USTC), Hefei, Anhui 230027, China
+86-18856022393 yjbian92@gmail.com, bianyj1992@126.com
https://github.com/eustomaqua *https://www.linkedin.com/in/yijunbian/*

EDUCATION

University of Science and Technology of China, Hefei, Anhui *Sep 2014 to Nov 2020*
- Ph.D. in Computer Science and Technology *(since Sep 2016)*
- Master student in Computer Science and Technology *(Sep 2014 to Aug 2016)*
- School of Computer Science and Technology
- Overall GPA: 3.65 (Grade: 86.87) Ranking: 2/37 (10/114 as a master student)

Northwest A&F University (NWAFU), Yangling, Shaanxi *Sep 2010 to Jul 2014*
- B.S. in Computational Mathematics, College of Science
- Overall GPA: 3.44 (Grade: 87.68) Ranking: 5/47

RESEARCH INTERESTS

Ensemble Learning, Machine Learning, Deep Learning, Fairness in AI,
Automated Machine Learning, Neural Architecture Search

PUBLICATIONS

[1] **Y Bian**, Y Wang, Y Yao and H Chen, "Ensemble Pruning Based on Objection Maximization With a General Distributed Framework," *IEEE Transactions on Neural Networks and Learning Systems*, vol. 31, no. 9, pp. 3766–3774, Sept 2020. Available: *https://ieeexplore.ieee.org/abstract/document/8891828*

[2] **Y Bian** and H Chen, "When Does Diversity Help Generalization in Classification Ensembles?" *IEEE Transactions on Cybernetics*, early access, Feb. 26, 2021, doi: 10.1109/TCYB.2021.3053165. Available: *https://ieeexplore.ieee.org/document/9364928*

[3] **Y Bian**, Q Song, M Du, J Yao, H Chen and X Hu, "Subarchitecture Ensemble Pruning in Neural Architecture Search," *IEEE Transactions on Neural Networks and Learning Systems*, early access, Jun. 18, 2021, doi: 10.1109/TNNLS.2021.3085299. Available: *https://ieeexplore.ieee.org/document/9460115*

TECHNICAL SKILLS

Programming Languages: Python, MATLAB, LaTeX, C/C++
Deep Learning Tools: Keras, TensorFlow, PyTorch

PROJECTS

[1] **EPFD** (url: *https://github.com/eustomaqua/EPFD*) *Apr 2020*
Official released code for the published paper "Ensemble Pruning Based on Objection Maximization With a General Distributed Framework"

[2] **PyEnsemble** (url: *https://github.com/eustomaqua/PyEnsemble*) *Jul 2019 to Apr 2020*
Open-source library for ensemble learning methods, involving existing diversity measures and ensemble pruning methods

EXPERIENCES

Shanghai Institute of Microsystem and Information Technology, Shanghai, China
- *Algorithm Engineer*, Bionic Vision System Laboratory *Dec 2020 to Present*
  - Implemented the semi-global matching (SGM) algorithm with C++ for the estimation of a dense disparity map from a rectified stereo image pair; gave a talk about SGM in the lab
  - Learned the Dlib package and the software usage of Xilinx HLS

- Applied two grants with research proposals and working on research about ensemble learning with diversity

TENCENT, Shenzhen, China

- *Research Intern*, Platform & Content Group (PCG) *Dec 2019 to Mar 2020*
  - Research on AutoML involved ensemble learning

RICH AI, Beijing, China

- *NLP Algorithm Engineer Intern*, NLP Group *Aug to Oct 2019*
  - Finished the technical part of the "NLP Algorithms Whitepaper" and those of four patents
  - Evaluated the performance of predicting keywords for a case study and the effectiveness of different tools for the "Named Entity Recognition (NER)" task on the Chinese corpus
  - Reproduced and modified the Commonsense Transformers to make it suitable for the Chinese corpus for automatic knowledge graph construction
- *Image Algorithm Engineer Intern*, Video Team *Aug 2018*
  - Reproduced the performance of existing models on data sets (cuhk, DukeMTMC, and Market1501) for the person re-identification problem

Texas A&M University, College Station, TX, United States

- *Visiting Research Scholar* *Nov 2018 to Apr 2019*
  - Data Analytics at Texas A&M (DATA) Lab Advisor: Xia (Ben) Hu
  - Department of Computer Science & Engineering
  - Research on utilizing ensemble learning in neural architecture search

University of Science and Technology of China, Hefei, China

- *Graduate Research Assistant* *Sep 2014 to Nov 2020*
  - The USTC-Birmingham Joint Research Institute in Intelligent Computation and Its Applications (UBRI) Supervisor: Huanhuan Chen
  - School of Computer Science and Technology
  - Topic: Research and applications of diversity in classification ensembles
- *Teaching Assistant*, School of Mathematical Sciences *Mar to Jul 2016*
  - Course: Mathematical Analysis (Undergraduate)

PROFESSIONAL SERVICES

Journal Reviewer

- IEEE Transactions on Neural Networks and Learning Systems
- Neural Networks

Open Source Contributor

- *AdaNet* (Made the GPU grow_growth=True to utilize both the AdaNet model and GPU better) *Oct 2019*
- *OpenNE* (Fixed bugs for the default value of the "seed" parameter) *Aug 2019*
- *AutoKeras* (Implemented "XceptionBlock" and "Tunable XceptionBlock" in the blocks branch) *Jun 2019*

Volunteer

- *GDG Shanghai* (Wrote three WeChat articles, two as technical sharing summary about audio and video technology, one as a conference summary of Women Techmaker 2021) *Mar to May 2021*

MAJOR HONORS & AWARDS

Awarded at the University of Science and Technology of China (USTC)

- GDC Technology Scholarship *Oct 2019*
- International Exchange Funding for Excellent Students *Apr 2018*
- Second Prize Academic Scholarship *Sep 2018 to Sep 2016, Sep 2014*
- First Prize Academic Scholarship *Sep 2015*

Awarded at the Northwest A&F University (NWAFU)

- Outstanding Undergraduate Graduation Thesis (Design) *Jun 2014*
- President Scholarship *Dec 2013*
- Excellence Award of the Undergraduate Innovation Forum and Finding Presentation *Jan 2013*
- Merit Student, for three consecutive years *Dec 2013 to Dec 2011*
- First Prize Professional Scholarship, four times in a row *Oct 2013 to Mar 2011*
- First Prize of the Painting and Calligraphy Category in the 12.4 Publicity Day for the Legal System *Dec 2011*
- Second Prize of Social Practice Papers in the 2011 Winter Break *Jun 2011*
- Best Debater in the Freshman Cup Debate *Nov 2010*