

HAO XU

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EDUCATION

Southeast University, China

09.2018 - 06.2021

Master of Control Science and Engineering.

Thesis: Study of the Adaptive and Distributed Evolutionary Multi-task Optimization Algorithm

* Outstanding graduate thesis Award

Supervisors: Prof. Siyu Xia, Prof. Kai Qin

Swinburne University of Technology, Australia

09.2019 - 12.2019

Visiting student. Full funded

Southeast University, China

09.2014 - 06.2018

Bachelor of Automation. GPA: 3.62/4.0

Thesis: Face Recognition in Real-time Surveillance Video

Supervisor: Prof. Siyu Xia

WORK EXPERIENCE

Pinduoduo, Software Engineer, Recommender system, Shanghai, China

07.2021 - Now

GPU-related performance engineering for deep learning recommendation models.

Embedding lookup and training; Low-precision neural network; TensorFlow backend development.

ANT Group, Software Intern, Operational research, Hangzhou, China

06.2020 - 06.2021

Development of a reusable software framework for multi-objective optimization.

Multi-objective optimization algorithms, software framework design.

PUBLICATIONS

- H. Xu, A. K. Qin and S. Xia, "Evolutionary Multi-task Optimization with Adaptive Knowledge Transfer," IEEE Transactions on Evolutionary Computation, vol. 26, no. 2, pp. 290-303, 2022.
- H. Xu, C. Zheng, Y. Nie and S. Xia, "Crowd Counting with Segmentation Map Guidance," 2019 Chinese Control Conference (CCC), 2019, pp. 7716-7721.

PATENT

- Hao Xu, Siyu Xia. A crowd density estimation method based on foreground segmentation map;CN110276264A[P]. 2019.

AWARDS

- First Prize of the "Beige Computing Cup" Vehicle Detection in Aerial Images (National-level 2019)
- Third Prize of National Graduate Mathematical Modeling Competition (National-level 2018)
- First Prize of Jiangsu Electronic Design Competition (Provincial-level 2017)
- Second Prize of National Student Electronic Design Competition (National-level 2017)

- Texas Instruments Scholarship (School-level 2015)
- National Inspirational Scholarship (School-level 2015)

SKILLS

- **Programming:** C/C++, Python, CUDA, Tensorflow
- **Languages:** Chinese (native), English (TOEFL-100)
- **Hobbies:** Tennis, swimming, traditional instrument (Xiao a vertical bamboo flute)