

Ziqiao Weng

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EDUCATION BACKGROUND

Zhejiang University City College, Hangzhou, China

Bachelor of Engineering in Electronics and Information Engineering

Sept., 2015 – present

GPA: 3.93/4; Ranking: 1/113;

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|----------------------------------|------------------|------------------------|--------------------------|--------------------------------------|
| | Program C 95 | Computer Network 95 | HCI 96 | Database Principles 96 |
| Main Courses | Ergonomics 97 | Web Application 97 | Big Data 98 | Electronic Analogy Technology 100 |
| Courses about Mathematics | Calculus 99 | Linear Algebra 97 | Probability Theory 97 | Physics 99 |

RESEARCH EXPERIENCES

Physics-Informed Neural Networks

School of Computing, University of Utah

Oct., 2018 - Present

Advisor: Prof. Shandian Zhe

Primary Framework: Tensorflow

- Applied Bayesian Optimization, Genetic Algorithm, Hyperband and Random Search Algorithms to hyper-parameters optimization (width and depth) of Physics-Informed Neural Networks, a data-driven solution of nonlinear PDE (Partial Differential Equations), including Burgers and Poisson PDE.
- Used matplotlib to show the results of each algorithms on each PDE, where the best result (error rate) of Burgers is $3.3e-4$ and that of Poisson is $0.7e-4$.
- Analysed the sampling error of Physics-Informed Neural Networks of Burgers and Poisson PDE.

Automation of Multifactor Models Construction

IIIS, Tsinghua University

Jun. - Oct., 2018

Advisor: Prof. Jian Li

Primary Framework: Pytorch

- Independently investigated DART (Differentiable Architecture Search) and its implementation.
- Divided the recent stock data (including factor data and price data), into training set and verification set.
- Proposed a MFC (Mutable Fully Connected) layer based on the idea of AutoML to automatically select multifactor operations by setting a threshold and finally achieved explicable multifactor (*Alpha*) formulas.
- Published a paper (**only author**) *From conventional Machine Learning to AutoML* accepted by *International Conference on Control Engineering and Artificial Intelligence (CCEAI 2019)*.

AWARDS

Provincial Government Scholarship, Zhejiang Provincial Government

2018

First-class Scholarship in Academic Excellence, ZUCC (TOP 3%)

2017 - 2018

First-class Scholarship in Academic Excellence, ZUCC (TOP 3%)

2016 - 2017

First-class Scholarship in Academic Excellence, ZUCC (TOP 3%)

2015 - 2016

Scholarship in Student Exchange Program, ZUCC

2016