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;

Main Courses	Program C 95	Computer Network 95	HCI 96	Database Principles 96
	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.
- Used cluster to submit batch jobs and processed results.
- 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).*

SKILLS

Programming languages: Python (Numpy, Pandas, Matplotlib), C++, C, C#, PHP, Java, Swift, Latex/Markdown
DeepLearning Frameworks: Tensorflow, Pytorch
Software/Database: Linux, Anaconda, Jupyter Notebook, Pycharm, Eclipse, Hadoop, MySql, Flash, Visual Studio, Sublime, MobaXterm, Overleaf.

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