Chengyuan Deng

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EDUCATION

Rutgers University, New Jersey, U.S.A | **Major GPA: 3.67**
Master of Science in computer science — Sept 2018
Tongji University, Shanghai, CHINA
***Major**: Bachelor of Engineering in* Electrical Engineering | **Major GPA: 3.62**
***Minor**: Bachelor of Science in* Applied Mathematics — Sept 2014-Jun 2018
HK Polytechnic University, *Exchange student***,** Hong Kong — Jan 2017- May 2017

PUBLICATIONS

C. Wang, **C. Deng**, V. Ivanov, "SAG-VAE: End-to-end Inference of Data Representations and Feature Relations "
C. Wang, **C. Deng**, S. Wang, "Imbalance-XGBoost: Leveraging Weighted and Focal Losses for Imbalanced Binary Classification with XGBoost", *IEEE Transactions on Emerging Topics in Computational Intelligence, 2019.(Arxiv Preprint)*

EXPERIENCES

Teaching Assistant, Rutgers University — Sept 2019 – now
Research intern(Natural Language Processing), Recurrent.ai — Aug 2019 – now

- Optimized Transformer-XL(Z. Dai et all, 2019) to state-of-art results by 2.6% for TTS. Trying to leverage self-attention mechanism(Vaswani et all, 2017) with Wavenet (DeepMind) for more promising results on audio generation.

Software engineering intern, Tongji Fintech and Big Data Research Institute — Jun 2017- Sept 2017

- Designed and developed the first software product of accurate alleviation upon Guizhou Province based on blockchain API, promoted the accuracy and efficiency of alleviation projects significantly

Data analysis intern, Haitong Securities Co., Ltd — Jul 2016- Sept 2016

- Analyzed the daily stock quotation and cyclical data by setting up models then predicted trends, proposed financial models for cutting-edge companies and wrote reports, with 200+ pageviews daily

PROJECTS

Adaptive Spiking Neural Network Controlled Robot Arm Movement, *Neuromorphic computing Research* — Feb 2019-now

- Develop an algorithm to transfer Spike Neural Networks generated by Loihi to guide the robot moving its arm.

Hybrid Neural Network Based Recommendation System, *Data mining* — March 2019-May 2019

- Propose and implement a hybrid neural network model integrating user history data with tensorflow

Diverse Animal Recognition at Wild Watch Kenya, *Computer vision Research* — Feb 2019– May 2019

- Recognize animals in images from *Serengeti Nation Park* with ResNET, implement spatial-temporal analysis

C# Based Development of Temporary Speed Restriction Server Simulation System — Mar 2018– Jun 2018

- Developed a integrated server system for centralized traffic control, radio block center, train communication control and adjacent TSRS, distributed on the train dispatching control simulation system in the lab of Tongji University

Towards Tunable Consensus Clustering for Functional Brain Connectivity on Music FMRI Analysis, *Research* — 2018

- Optimized the algorithm "Bi-CoPAM" which synthesized three representative clustering algorithms into consensus partition matrices to find the best clustering result, which responds to certain brain zones. Obtained better recognition.

HORNOS & AWARDS

Yamaha Asian Music Scholarship of Honorable Mention.
ACM Programming Contest, Shanghai Regional (**First prize**, top 4) — Mar 2018
Mathematical Modeling Invitation of U.S.A — Feb 2018
National Undergraduate Contest in Mathematical Modeling (**First prize. Role: group leader**) — Sept 2017
National Undergraduate Contest in Electrical Design — July 2017

TECHNICAL SKILLS

Full-stack Development: React/Vue.js+Node.js+Firebase/MongoDB
Machin Learning: Deep learning with Tensorflow, PyTorch, **Probablistic Learning**
Data mining, Database,Data Visualization, AWS, Goolge Cloud & Colab
Programming language: python, java, C++, C#, javascript, SQL, MATLAB, R

LEADERSHIP EXPERIENCE

President, **Piano Club of Tongji University** — Sept 2017-Jun 2018