

Jun Huang

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EDUCATION

- **Sun Yat-Sen University (Expected: Jun.2020)** GuangDong, China
Major of software Engineering, school of Data and Computer science; GPA: 4.167 Aug. 2017 – Now
- **Sun Yat-Sen University** GuangDong, China
Major of Physics, school of Physics and Astronomy (before transfer major); GPA: 3.9 Aug. 2016 – Sep. 2017
- **over all GPA and RANKING**
overall GPA: 4.149 / 5; overall Ranking: 1/80 (1/334 including all directions of software Engineering) Aug. 2016 – Now

RESEARCH INTERESTS

- **decentralized parallel stochastic gradient descent algorithm for non-convex problem** Sep. 2018 - Now
works: preparing for icml 2019; mainly focused on
 - **variance reduction with non-iid data distribution:** which perhaps the most concerned problem in decentralized training of deep learning model, because the main future application of this algorithm is meant to raise the confidential level of each individual worker/user who gives out their user data, by applying this technical can preserve more privacy and security for there is no centralized center which can collect all the training/user data
 - **balance of training and communication traffic spent:** which is original purpose of this kind of algorithm, aimed to overcome the centralized algorithm's bottleneck of training speed for the center have to wait for all the slaves to compute their work, which result in traffic congestion. for the new algorithm can much reduce the spent of traffic by applying method like each node only communicates with partial nodes, my recent work is about to solve this problem inspired from previous study.
- **style transfer & transfer learning** Oct. 2017 - Jul. 2018
works: some ideas and prototype of style transfer algorithm; mainly focused on
 - **mixed style transfer:** by applying famous transfer learning technique, extract two irrelevant style of painting's feature of style instead of meaning/structure, then mix them with existed algorithm, then applied to the target photo to make sure the output photo having the mixed style
- **extremely follow with interests in finding new paradigm of learning:** GAN, dual learning, sparse coding, meta learning, reinforce learning; I think all those algorithms are all very attractive, I wish I could make some something just like those.

SKILLS

- **well-trained physical and mathematical background and intuition:** thanks to the freshman year with major of Physics
- **complete fundamental knowledge of current deep learning study field:** for a long while, I am not knowing which field of deep learning I prefer, so refer to my research interests, I bouncing between different study a lot, result in learning many models and techniques
- **strong coding ability with pytorch:** again, thanks to my bouncing between different fields, I have recreated many paper including cv and nlp, and some application with these technique

EXPERIENCE

- **successfully complete the data analytics and artificial intelligence program at University of Technology sydney (UTS):** which is a summer school, by attending this program, communicates with the professor there with some thoughts about different fields of study about recent works in deep learning, try to find out what kind of study I would like to put my hands on
- **IGEM competition (known as International Genetically Engineered Machine Competition)**
result: silver medal (top 30%); my role: machine learning support

PROJECTS & AWARDS

- **ddpsgd:** a decentralized parallel stochastic gradient descent algorithm for optimizing deep learning model
- **AI-TA (ai teach assistant):** a chatbot which can answer question for students just arrived university, based on lots nlp technique. <http://github.com/huangjundashuaige/hackathon-chatbot>
- **cross-ism style transfer:** a style transfer algorithm focused on mixing style transfer.
- **many awards:** some excellent student awards; some mathematical modeling contest award.