Yan Pan

Undergraduate Student - School of Computer Science - Carnegie Mellon University

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Education

B.S. in Computer Science, Carnegie Mellon University
Minors in Machine Learning & Mathematics   **QPA: 3.95/4.0**

📅 Aug 2019 – May 2023   📍 Pittsburgh, PA

The High School Affiliated to Renmin University of China
Early Development Program

📅 Sep 2012 – Jul 2019   📍 Beijing, China

Experience

Undergraduate Researcher, Carnegie Mellon University
📅 Jan 2021 - Present   📍 Pittsburgh, PA

- Working on multimodal machine learning in CMU MultiComp Lab.

Student Researcher, Peking University
📅 Jun 2018 - Dec 2018   📍 Beijing, China

- Conducted research at Institute of Remote Sensing and Geographical Information Systems at Peking University.
- Analyzed & visualized spatial-temporal features of shared bike distribution.
- Implemented deep learning model based on LSTM to predict the demand for shared bikes.
- Authored and published research paper.

Student Instructor, The High School Affiliated to Renmin University of China
📅 Jan 2019 - Jun 2019   📍 Beijing, China

- Co-instructed a full semester elective course Mathematical Modeling and Application for high school students in Spring 2019.
- Taught lectures and designed course materials in optimization, clustering, differential equation, graph theory, and case studies.

Projects

Music Generation with Deep Learning
📅 Oct 2020 – Jan 2021   📍 Pittsburgh, PA | GitHub

- Designed and implemented deep learning architecture based on LSTM and RBM from scratch in PyTorch to generate realistic classical piano music.

Modeling Complex Systems – Dynamics of Social Gatherings
📅 Sep 2019 – Dec 2019   📍 Pittsburgh, PA

- Constructed simulation model of the formation and dissolution of social gatherings in NetLogo.

Coursework

- Convex Optimization* (PhD)
- Machine Learning (PhD)
- Computer Vision*
- Computer Graphics*
- Data Structures and Algorithms
- Theoretical Computer Science
- Computer Systems

(*: Ongoing)

Skills

Programming Languages

Python   C++   C   SML   MATLAB   Haskell   Java

Libraries & Frameworks

PyTorch   TensorFlow   Keras   Scikit-Learn   OpenGL   OpenCV

Platforms & Tools

LaTeX   Linux   Git   Vim

Honors & Awards

★ **Candidate Master, Codeforces (Max Rating: 1927, Top 5%)**
Feb 2021

★ **Dean's List, High Honors**
Fall 2019 – Fall 2020

★ **First Prize, Shing-Tung Yau High School Academic Award – Computer Award**
Dec 2018

★ **Finalist, International Mathematical Modeling Challenge, International Contest**
May 2018

★ **Outstanding, International Mathematical Modeling Challenge, Greater China**
May 2018

★ **DengFeng Cup National High School Academic Contest – Data Mining**
July 2017