# YAN PAN

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## PERSONAL INFORMATION

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## RESEARCH INTEREST

Machine Learning: Reinforcement Learning, Deep Learning, Multimodal Learning.
Theory: Learning Theory, Optimization.

## EDUCATION

**Carnegie Mellon University** Aug 2019 – Present
Bachelor of Science in Computer Science (GPA: 3.95/4.00) *Pittsburgh, PA*
Minors in Machine Learning & Mathematical Sciences

**Tsinghua University** Feb 2021 – Jun 2021
Exchange Student at Department of Computer Science & Technology *Beijing, China*

## RESEARCH EXPERIENCE

**CMU MultiComp Lab** Jan 2021 – Present
Undergraduate Research Assistant *Pittsburgh, PA*
- Advisors: Prof. Louis-Philippe Morency, Paul Liang.
- Researched multimodal machine learning for multimodal social interations.

**Peking University Institute of Remote Sensing and GIS** Jun 2018 – Dec 2018
High School Researcher *Beijing, China*
- Applied LSTM to predict the demand for shared bikes.

## PROJECTS

**Scotty3D** Jan 2021 – Present
Course Project for Computer Graphics, Project Description by Prof. Keenan Crane
- Build a 3D graphics software package includes components for interactive mesh editing, realistic path tracing, and dynamic animation.

**Classical Piano Music Generator based on LSTM-RBM** Oct 2020 – Jan 2021
Course Project for Introduction to Machine Learning (PhD), GitHub
- Trained a classical piano music generator based on LSTM-RBM model in PyTorch.

## HONORS & AWARDS

**Scholarship & Fellowship**
- CMU Summer Undergraduate Research Fellowship (SURF) Summer 2021

**Awards**
- CMU Dean's List, High Honors Fall 2019 – Fall 2020
- Shing-Tung Yau High School Science Award – Computer Award, Finalist Dec 2018
- International Mathematical Modeling Challenge (IMMC), International Finalist May 2018
- International Mathematical Modeling Challenge (IMMC), National Outstanding May 2018
- DengFeng Cup National High School Academic Contest – Data Mining Aug 2017

## REVEVANT COURSEWORK

| | |
|---|---|
| 10-725 Convex Optimization (PhD) | 16-385 Computer Vision |
| 10-701 Introduction to Machine Learning (PhD) | 15-462 Computer Graphics |
| 15-251 Great Ideas in Theoretical Computer Science | 21-325 Probability |
| 15-213 Introduction to Computer Systems | 21-355 Principles of Real Analysis |

## SKILLS

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|---|---|
| **Programming Languages** | Python, C++, C, MATLAB, Standard ML, Haskell, Java |
| **Platforms** | PyTorch, TensorFlow, Keras, Scikit-Learn, OpenCV, OpenGL |
| **Software Tools** | LaTeX, Git, Vim |
| **Natural Languages** | English, Mandarin Chinese |