

Xichen Pan

University Student @ CS. SJTU

Email : panxichen.pxc@gmail.com

Mobile : +86 186 535 00448

EDUCATION

- Shanghai Jiao Tong University** Shanghai, China
B.Eng. in Computer Science; GPA: 3.74/4.3 Sept. 2018 – June 2022 (*Expected*)
Relevant Coursework: Artificial Intelligence, Computer Network, Operating System, Computer Architecture and Organization, Algorithm, Data Structure, Discrete Mathematics, Linear Algebra, Probability and Statistics, Calculus

SKILLS

- Programming:** C/C++, Python, L^AT_EX
- Packages:** Pytorch, NumPy, pandas, AllenNLP, PyQt5
- Knowledge:** NLP, Speech, Multimodal Deep Learning, Knowledge Graph

EXPERIENCE

- Horizon Robotics** Beijing, China
Audio-Video Multimodal Speech Algorithm, Research Intern Apr. 2021 – Present
 - Doing research on Audio-Video Multimodal Speech Recognition.
- John Hopcroft Center for Computer Science at Shanghai Jiao Tong University** Shanghai, China
Audio-Video Speech Recognition, Research Intern Mar. 2021 – Present
 - Trying to use single-modal pre-trained models trained by contrastive learning in large-scale datasets to promote Audio-Video Speech Recognition under the guidance of Prof. Zhouhan Lin.
 - This work can reduce the size of the aligned dataset needed for training Multimodal Speech Recognition model.
- NSF Center for Big Learning at University of Florida** Gainesville, FL
Improving Question Answering using EncyclopediaNet, Summer Research Intern July 2020 – Sept. 2020
 - Improved question answering on CommonsenseQA using EncyclopediaNet under the guidance of Prof. Dapeng Oliver Wu and Dr. Haotian Jiang.
 - Constructed EncyclopediaNet by using facts as nodes and connecting them with each other through if-then reasoning. Introduced multi-hop reasoning in EncyclopediaNet to improve question answering.
 - Extracted the 5W1H information of simple sentences to structure the nodes in EncyclopediaNet using the Bert-based Semantic Role Labeling model.
- Data Driven Software Technology Lab at Shanghai Jiao Tong University** Shanghai, China
An AI-based Approach to Check Coding Style, Research Intern July 2019 – Dec. 2019
 - Developed a coding style automatic generator using Pylint and PyQt5 under the guidance of Prof. Yuting Chen.
 - The software can automatically adjust the 43 commonly used parameters and generate personalized Python coding style configuration file based on existing code in the codebase.

SELECTED PROJECTS

- Drug Molecular Toxicity Prediction:** Built GCN and GAT to solve the problem of Drug Molecular Toxicity Prediction in Artificial Intelligence course and got 23/25, the best performing model achieved an AUC score of 0.89 on the test set.
- MIPS-like Multi-Cycle Pipeline Processor:** Built a MIPS-like Multi-Cycle Pipeline Processor using Verilog in Experiments in Computer Organization course and got 100/100. The processor can execute 31 instructions and supports stall, forwarding, interrupt and exception.
- Xcone:** Developed an IIoT software that can deal with both data extraction and DNC communication. It can extract the main information by analyzing G-code and communicate with most CNC machine tools. At present, the software has been updated in 5 versions and put into use in the workshops of several colleges and universities.
- Implementation Work:** Implemented LeNet, AlexNet, VGG, NiN, GoogLeNet, ResNet, DenseNet, GRU, LSTM and other networks by using Pytorch with reference to GitHub open source repositories.

AWARDS

- Academic Excellence Scholarship (2020):** rank 31 in 155 candidates in the department
- Academic Excellence Scholarship (2019):** rank 54 in 470 candidates in the school