

PAN QIPING

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📄 [ppppqp.github.io](https://github.com/ppppqp)

🔗 github.com/ppppqp

Education

University of Michigan, Ann Arbor

Bachelor of Engineering in Computer Science (3.8/4.0)

September 2020 – May 2022

Michigan, U.S.

Shanghai Jiao Tong University

Bachelor of Engineering in Electrical and Computer Engineering (3.7/4.0)

September 2018 – August 2020

Shanghai, China

Projects

Deep Learning Based Protein Methylation Prediction

September 2021 - Present

- Implemented an end to end protein feature extraction program that reads raw data files, computes and outputs the sequential and structural features for about 10,000 raw data files.
- Construct a convolution neural network pipeline with bidirectional LSTM, self attention mechanism and residual layers that takes sequential and structural features to make predictions.

NLP Project: GAN-style GPT

September 2021 - Present

- Trained and evaluated Huggingface Electra Base implementation on the server with GPU.
- Analyzed the Huggingface GPT implementation to seek GAN style mutations on GPT.

Interactive Program Synthesis System

August 2021 - Present

- Built a user interface with React.js and MaterialUI to provide various user input to synthesizer backend, which generates tensorflow tensor manipulations by taking I/O examples and natural language description.
- Designed and implemented dataflow diagram for tensorflow programs, which proves to enhance the users' understanding of the generated code.
- Wrote the literature review on natural language and multi-modal programming parts for the paper.

Experience

TikTok

May 2021 – August 2021

Web Developer Intern

Shanghai, China

- Developed a unit test set using Jest.js and integrated into delivery workflow to automatically detect bugs.
- Upgraded the user behavior tracking system in order to unify the source into one single database for the convenience of data aggregation and analysis.
- Utilized git hooks to auto-detect whether other files need to update based on the local file change.
- Developed a VScode extension that detects local schema files and auto-complete the attributes for JSON objects
- Developed an online service that supports batch upgrade in database with progress tracking.
- Refactored code into clearer hierarchy to facilitate the code reuse and management for different business types.

Social Work

UMJI Writing Center

Fall 2019 – Fall 2020

Writing Consultant

Shanghai Jiao Tong University

- Met with students and gave advice on their academic writing.
- Served over 50 students over the period.

Volunteer Teacher

Spring 2020

Math Teacher

LvChun Middle School

- Teach middle school students in needy areas in Yunnan, China.
- Assisted local teachers by correcting homework and invigilating exams.

Awards

Scholarship/Remarks

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| • Dean's list: University of Michigan | April 2021 |
| • University Honors: University of Michigan | April 2021 |
| • Student Development Scholarship: Shanghai Jiaotong University Joint Institute | June 2020 |
| • ABC Outstanding Undergraduate Scholarship: Shanghai Jiaotong University | November 2019 |

Competition

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| • Meritorious Winner: Mathematical Contest In Modeling | May 2020 |
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