# Yueqi Song (She/Her/Hers)

### **EDUCATION**

Bachelor of Science, Carnegie Mellon University

Aug 2020 - May 2

Aug 2020 - May 2024 (expected graduation)

Dual Degree in Computer Science, Stats and Machine Learning; Minor in Computational Finance

**GPA**: 3.85/4.0

**Relevant Coursework**: Experimental Design for Behavioral and Social Sciences, Machine Learning, Functional Programming, Computer Systems, Parallel and Sequential Data Structures and Algorithms, Imperative Computation, Probability and Statistics, Microeconomics, Macroeconomics.

Computer Languages: C, Golang, Kotlin, Python, Standard ML, x86 assembly, Java, R, Typescript.

#### **PUBLICATIONS**

[2] GlobalBench: A Benchmark for Global Progress in Natural Language Processing [Link]

**Yueqi Song**, Catherine Cui, Simran Khanuja, Pengfei Liu, Fahim Faisal, Alissa Ostapenko, Genta Indra Winata, Alham Fikri Aji, Samuel Cahyawijaya, Yulia Tsvetkov, Antonios Anastasopoulos, Graham Neubig

Under Review, 2023

[1] The Slowdown of the Chinese Economy [Link]

Yueqi Song\*, Yiru Wang\*, Zhushan Xiang\*

American Journal of Industrial and Business Management, 2019

#### **PROJECTS**

#### **Culturally Diverse Visually Grounded Reasoning:**

Link to proposal

May 2023 - Current

- A research project that aims to improve performance of visually grounded reasoning on culturally diverse representatives.
- Directed by <u>Professor Graham Neubig</u> and PhD student <u>Simran Khanuja</u>.
- Fine-tuned mUNITER, xUNITER, ViLT, and CLIP on NLVR2 dataset and tested on MaRVL dataset.
- Used analytical tools such as zeno ml to do error analysis on baseline models' performance.

# GlobalBench: A Benchmark for Global Progress in Natural Language Processing [Link to paper]

Oct 2022 - June 2023

- A research project that aims to dynamically evaluate global progress in NLP.
- Directed by <u>Professor Graham Neubig</u> and PhD student <u>Simran Khanuja</u>.
- Designed and built an NLP benchmark named GlobalBench that supports inclusive datasets,
   evaluates utility and equity, identifies underserved languages, and encourages progress on them.
- Collected datasets and system outputs as initial submissions to GlobalBench.

# **Classical Music Generation Using GAN**

Mar 2022 - May 2022

- A class project that aims to generate classical music using machine learning.
- Transformed MIDI files into images and then used GAN to generate music.
- Generated music is categorized as classical music by established classifiers.

#### **TEACHING**

### **Lead TA in CMU 15-213/14-513/15-513** (Computer Systems)

Pittsburgh, PA

Jan 2022 - May 2022

- Held recitations that help students review coursework and prepare for labs, assignments, and exams.
- Held office hours and answered more than 150 questions from students.
- Wrote and proctored exams, wrote and graded labs and assignments.

#### WORK EXPERIENCE

# Software Engineering Intern at Turbotax, Intuit (Backend)

San Diego, CA

May 2023 - Aug 2023

- Developed Turbotax Taxbot on top of GPT-3.5 and GPT-4 through prompt engineering, enabling
  users to conveniently file their taxes in a conversational manner instead of dealing with
  traditional tax forms.
- Implemented an advanced question answering mechanism on Turbotax, integrating GPT-3.5 and GPT-4, empowering users to ask questions related to tax filings when using traditional tax forms.
- Automated big tests on tax data, enabling tax analysts to easily locate their interest.

**Software Development Intern at PreVeil, Inc.** (Frontend)

Boston, MA

# May 2022 - Aug 2022

- Used Golang to add file status and modification time features to PreVeil's secure file sharing solution, reducing time complexity of PreVeil's file status checking from O(n) to O(1).
- Implemented prefix tree structure in syncing, reducing time complexity from O(n) to O(log(n)).
- Performed testing of software features and fixed functional bugs associated with file lock statues.

# **HONORS**

Dean's List (High Honors): fall 2020, spring 2021, spring 2022, fall 2022, spring 2023