

# Jiyang Tang

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## EDUCATION

### Carnegie Mellon University

*Master of Science in Intelligent Information Systems*

Pittsburgh, PA

May 2024

### Duke Kunshan University (DKU)

*Bachelor of Science in Data Science by Duke Kunshan University*

*Bachelor of Science in Interdisciplinary Studies (Data Science) by Duke University*

Kunshan, China

May 2022

May 2022

## EXPERIENCE

### DKU Speech and Multimodal Intelligent Information Processing Lab

May 2020 - May 2022

*Research Assistant*

*Funded by DKU Summer Research Program 2020*

- Constructed a Computer-Aided Pronunciation Training system that detects Mandarin language learners' mispronunciation and gives visual and audio feedback, leveraging deep learning and speech recognition
- Built a server backend running pronunciation evaluation algorithms
- Programmed and published a mobile app (on iOS and Android devices) that allows users to record pronunciation and view evaluation feedbacks
- Deployed the system to support 30+ international students' daily homework and in-class activities for a semester
- Published End-to-End Mandarin Tone Classification with Short Term Context Information as the primary author during APSIPA ASC 2021

### Xiaomi

*Software Engineer Intern*

Beijing, China

May 2021 - Jan 2022

- Designed and implemented a novel end-to-end Computer-Aided Pronunciation Training (CAPT) system
- Investigated the performance and production value of applying multiple fault detection methods and several scoring backends to the CAPT system
- Devised new strategies to train models on small and severely imbalanced dataset
- Developed an additional unsupervised mispronunciation detection and correction pipeline
- Overhauled Xiaomi's production CAPT system that has been deployed in all Mi Kids Watch series and expanded its language support to include Mandarin Chinese

### iFLYTEK

*Software Engineer Intern*

Chengdu, China

July 2020 - Aug 2020

- Designed and constructed software tools used by the project team of Xunfei Yingyutong, an AI English learning pad, such as automatic price monitor and network traffic diagnostic tools

## SKILLS

Programming languages: C++, Python, Java

Frameworks/toolkits: PyTorch, Espnet, Kaldi, FastAPI, Flutter, Unity Engine

Cluster software systems: SGE, SLURM

Others: Linux environment, Git-based development workflow