

# Jiyang Tang

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## EDUCATION

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<b>Carnegie Mellon University</b> <i>Master of Science in Intelligent Information Systems</i>	Pittsburgh, PA May 2024
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<b>Duke Kunshan University (DKU)</b> <i>Bachelor of Science in Data Science by Duke Kunshan University</i> <i>Bachelor of Science in Interdisciplinary Studies (Data Science) by Duke University</i>	Kunshan, China May 2022 May 2022
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## EXPERIENCE

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<b>DKU Speech and Multimodal Intelligent Information Processing Lab</b> <i>Research Assistant</i> <i>Funded by DKU Summer Research Program 2020</i>	May 2020 - May 2022
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- Constructed a Computer-Aided Pronunciation Training system that detects Mandarin language learners' mispronunciation and gives visual and audio feedback, using 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 which was used for 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

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<b>Xiaomi</b> <i>Software Engineer Intern</i>	Beijing, China May 2021 - Jan 2022
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- Designed and constructed a novel Computer-Aided Pronunciation Training (CAPT) system
  - Investigated the performance and production value of applying multiple fault detection methods and several scoring backends to existing speech recognition models
  - Developed an unsupervised mispronunciation detection pipeline using end-to-end speech recognition and unsupervised speech processing
  - Designed strategies to train models on small and severely imbalanced dataset
- Overhauled Xiaomi's production CAPT system, used by Mi Kids Watch series, and expanded its language support to include Mandarin Chinese

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<b>iFLYTEK</b> <i>Software Engineer Intern</i>	Chengdu, China Jul - Aug 2020
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- 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

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- 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