

Xiaoting Fu

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EXPERIENCE

- **ABB Inc. Software Engineer Intern** - Raleigh, NC *May 2018 - Aug. 2018*
 - Developed tools to convert between different format of databases (SQLite and MS Access)
 - Programmed tools for database comparison, changes revision and changes application from one database to another
 - Designed visual interfaces for editing the SQLite database
 - Implemented a SQL Parser for generating SQL action queries based on composite display queries
- **Continuous Children Speech Recognition Research** - ArgLab, Raleigh, NC *Jan 2018 - May 2018*
 - Evaluated audio quality using signal-to-noise ratio and visualize the results
 - Applied forced alignment to get the timestamps of the human generated transcriptions
 - Used Kaldi nnet3 to train an acoustic model with for 40 hours of children's speech and use Librispeech corpus to train the language model
 - Compared word-error-rate (WER) of the existing open-source speech recognition toolkits on children speech corpus including Kaldi and CMU Sphinx.
 - Applied speaker adaptation, vocal tract length normalization (VTLN) to improve the existing models.
- **FLECKS Project: Intelligent Agent Prototype** - ArgLab, Raleigh, NC *June 2018 - Present*
 - Deployed the RHEL server for web hosting with Docker Container
 - Coded the website to stream audio using Socket.io
 - Integrated the Kaldi toolkit as a web service
- **Spoken Language Assessment for ESL Learner** - ArgLab, Raleigh, NC *Sept 2018 - Present*
 - Built an automatic spoken language assessment system based on the grammatical and semantical correctness of speech responses
 - Trained an ASR engine with 9,000+ utterances from ESL learners along with 1,000+ hours external speech
 - Applied pitch normalization and speech adaptation techniques to reduce differences between different models
 - Trained a supervised neural network classifier on the output transcription for response quality assessment
- **Android Electronic Health Record System** - WKU, China *Jan 2017 - May 2017*
 - Developed an Android application for recording health data of the older adults
 - Used Firebase for real-time database interaction
 - Provided Health record visualization for user and recommend food and activity based on user daily data record
 - Generated user manual and documentations for future references

EDUCATION

- **North Carolina State University** - Raleigh, NC *Aug. 2017 - Present*

Ph.D. in Computer Science; GPA: 3.7 / 4.0
- **Wenzhou-Kean University** - Zhejiang, China *Sept. 2013 - Jun. 2017*

B.S. of Computer Science; GPA: 3.9 / 4.0

SKILLS AND INTERESTS

- **Languages:** Python, Shell, Java, C#, SQLite, NodeJS, Unix OS, Docker, Kaldi, CMUSphinx, Tensorflow