

# Lizzi Yin

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## Education

Carnegie Mellon University  
Computer Science Major, Math Minor  
Sep 2015 – Exp. May 2019  
Cumulative GPA 3.83/4.0  
Dean's List (all semesters)

## Coursework

Machine Learning (Phd level)  
Distributed Systems (Master level)  
Algorithms Design and Analysis (Master level)  
Functional Programming

## Projects

### Listening Practice Everywhere

*Hackathon | Python*

- A listening practice tool incorporated with Google Speech Recognition API to help non-native English speakers practice English listening.

### Messenger Bot Therapist

*Hackathon | JavaScript*

- A chat bot on Messenger that automatically reaches out and responds to possibly depressed people, detects their mood via Microsoft Cognitive Services API, and helps people improve their feelings.

### Ingress @ CMU

*Hackathon | Python flask, SQL*

- A python project built with flask and SQL that's similar to CMU version of Ingress where users can 'capture' a CMU building by being close to its physical location.

### Application of Convolutional Neural Networks in Accent Identification

*Personal | Tensorflow*

- A CNN approach to the problem of accent identification in spoken English that beats literature accuracy by 9%.

## Programming Skills

*Experienced:* Java, Python, C, SML, SQL  
*Proficient:* JavaScript, HTML, CSS, MATLAB,  
*Familiar:* R, C++, LaTeX, Makefile

## Work Experience

### Software Engineering Intern

*Bloomberg LP. | May 2018 – Aug 2018 | New York City, NY*

- Built a subscription propensity machine learning model with Pyspark.mllib that can generate 10 million+ revenue/year.

- Worked with a team of nine to plan, design, select data with SQL on Google BigQuery, and compute features with PySpark on Google Cloud Datalab.

- Developed helper functions for the whole team to compute features, run models, and test model metrics in a more generic fashion that saved 12+ man hours/person/feature.

### Algorithms Development Intern

*Unisound | May 2017 – Aug 2017 | Shanghai, China*

- Developed a speech separation product through deep learning training in TensorFlow for speaker independent multi-talker speech separation.

- Experimented with relevant machine learning algorithms via Pytorch and CUDA on GPUs in Docker platform.

### Education Strategy Intern

*ExpII, Inc. | Sep 2017 – Dec 2017 | Pittsburgh, PA*

- Headed a team of four in creating innovative problems for math courses on expii.com under supervision of Professor Po-shen Loh.

- Explored and designed various technologies to make teaching and learning more efficient and effective.

### Operation and Data Analyst Intern

*Wallstreetcn.com | May 2016 – Aug 2016 | Shanghai, China*

- Installed Google Analytics tools to monitor and gather user data from website, phone app.

- Analyzed data with Pandas and Matplotlib to plan and present advertising budget investment accordingly.

### Teaching Assistant

*15-210 Parallel and Sequential Data Structures and Algorithms*

*15-150 Introduction to Functional Programming*

- Helped in developing and testing a secure autograding infrastructure to save 500+ man hours/year.

- Collaborated with other course staff to teach lab sections, created and reviewed assignments including homework and labs, conducted office hours, administered exams and answered students' questions.