

# Bingyu (Bonnie) Zhang

(267)-361-8219 | bingyuz7@sas.upenn.edu

## EDUCATION

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### University of Pennsylvania (UPenn)

Philadelphia, PA, USA

*Ph.D. in Applied Mathematics & Computational Science*

*Sept. 2021 –*

### Fudan University (FDU)

Shanghai, China

*M.S. in Applied Statistics*

*Sept. 2019 – June 2021*

- Rank: 3/20; Awards: Outstanding Student (10%); **Graduate with Honors**

### Shanghai Jiao Tong University (SJTU)

Shanghai, China

*B.S. in Mathematics & Applied Mathematics*

*Sept. 2015 – June 2019*

- Cumulative GPA: **89.18/100**; Rank: 3/57; **Graduate with Honors**
- Awards: Kwang-Hua Scholarship (5%), SFI Scholarship (5%)

## PROFESSIONAL EXPERIENCE

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### DotAI (Startup)

Shanghai, China

*Data Scientist Intern*

*Dec. 2020 – Aug. 2021*

- Developed the model based on web crawler labels, BERT classification, and hierarchical clustering to consolidate single source paper data with the same author name
- Constructed text positioning and recognition (OCR) for customs declaration data and booking data
- Developed auto annotation tools for videos using Mask-RCNN

### Amazon

Shanghai, China

*Solutions Architect Intern, AWS GCR Public Sector*

*May 2020 – Oct. 2020*

- Built LSTM model for English Automatic Speech Recognition of Chinese teenagers
- Established churn prediction model via EMR cluster based on recency and frequency ratio data

## RESEARCH EXPERIENCE

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### Cell Atlas Annotation Based on Joint Scoring and Supervised Learning

*Sept. 2020 – Mar. 2021*

- Scored the sample cells by marker genes; used supervised learning to classify the cells

### Learning Hierarchical Features from Generative Models

*June 2020 – July 2020*

- Used a ladder structure under the training framework of single-layer Variational Auto-encoders
- Learned disentangled hierarchical features on image datasets MNIST, SVHN and CelebA

### Community Mining and Link Prediction

*Oct. 2019 – Nov. 2019*

- Applied fast-unfolding algorithm and clique penetration algorithm to community mining
- Calculated node similarity; carried out k-means and DBSCAN to identify special nodes

## LEADERSHIP & ACTIVITIES

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Class Council of the Alumni Association, SJTU

*June 2019 – Present*

Minister of School of Mathematical Sciences Student Union, SJTU

*June 2016 – Nov. 2017*

Volunteer of Shanghai International Marathon

*Oct. 2016*

## SKILLS

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Programming: C++, Python, R, Matlab

Tools: LaTeX, Linux, Git, SPSS, SQL

Languages: Japanese (JPLT N2); English (CET6 617, TOEFL 104); Mandarin (native)