# NAME

Phone, Email
Waltham, MA
https://github.com
https://www.linkedin.com

## SUMMARY

PhD candidate in the mathematics department at Brandeis University, expected to graduate in June 2022. Conducted research in both theoretical and practical machine learning, including Graph Neural Networks and Computer Vision and also have experience in Data Mining and Natural Language Processing. Haveprevious industry experience working at ByteDance on advertising monetization. Proficient in python, tensorflow, pytorch, data structure and algorithms. Actively seeking full-time positions in machine learning and data science.

## SKILLS

Proficient in python, tensorflow, pytorch, algorithm and data structure, familiar with Hadoop, SQL, Java Language: Chinese (native)

## EDUCATION

**Brandeis University**, Waltham, USA August 2017 - Present
**PhD candidate, Department of Mathematics**
*Relevant Courses:* Optimization, Algorithm and Data Structure, Numerical Methods for Scientific Computing, Statistical Machine Learning, Data Mining, Statistical Approaches to Natural Language Processing, Graph Mining
**Award**: Outstanding Graduate Teaching Award

**Capital Normal University, Beijing, China** September 2014 - June 2017
**Master of Science, Department of Mathematics**
**Award**: National Scholarship

**Transnational Law and Business University, Seoul, Korea** September 2009 - June 2011
**Master of International Law**
Wuhan University, Wuhan, China Sept 2005 - June 2009
Bachelor of Law

## INDUSTRY EXPERIENCE

**Internship at ByteDance (Advertising Monetization), Beijing, China** June 2021 - September 2021

- Extracted conversion related features in advertising system from multiple app products using Hadoop
- Incorporated DIN (Deep Interest Network) with DeepFM, implemented with tensorflow · Trained the model using sequence features to boost the CVR prediction, with AUC increasing by 1%

## DATA PROJECTS

**ACM RecSys Challenge 2019 (ranked 103 among 575 teams)**

- Built a recommendation system to predict clicked hotels for each user's session based on popularity score of each hotel and order of actions of each user

**Neural Network Parser**

- Built an encoder-decoder model based on NMT (TensorFlow Neural Machine Translation) to train a neural network parser on the Penn TreeBank dataset

**PUBG Finish Placement Prediction**
**Kaggle competition: ranked 11% among all 1534 competitors**

- Predicted final placement from final in-game stats from over 65,000 games' worth of anonymized player data
- Created feature engineering, built LightGBM model and used grid search CV algorithm to turn hyperparameters

## RESEARCH EXPERIENCE

**PhD Researcher, Department of Mathematics, Brandeis University**
**Convolutional Networks with Phase Information**

- Implemented an efficient and robust DNN model with pytorch to tackle object recognition · replaced part of traditional convolutional filters of CNN with trainable Gabor filters, which, in contrast with traditional filters, have only constant number of parameters
- Made use of phase information obtained from wavelet (Fourier) decomposition, such as phase congruency and phase symmetry, which is particularly invariant to illumination and scale when used to detect edges and corners

**Learning Guarantees for Graph Convolutional Networks**

- Presented a provable guarantees for one of the most popular graph neural network models, Graph Convolutional Networks (GCNs), for semi-supervised community detection tasks

## SELECTED PUBLICATIONS

**Learning Guarantees for Graph Convolutional Networks on the Stochastic Block Model,** XXXXX, under review

## TEACHING AND MENTORING EXPERIENCE

**Mentor of Practicum Spring 2021, Fall 2019**

- Coached new graduate student instructors in Teaching Apprenticeship Program, provided written criticism of and consultation on classroom teaching practices

**Instructor and TA 2018 - 2021**

- Taught: Methods and Techniques of Calculus; TA: Advanced Calculus and Fourier Analysis, Optimization and Introduction to Proofs

**Evening Tutoring Program** 2017 - 2018

- Worked as tutor in the department's evening tutoring program, which serves undergraduate students taking calculus