

Yiwen Yuan

Email: yiweny@andrew.cmu.edu Phone: (+1) 412-880-9524 Github: <https://github.com/yiweny>

Education	Carnegie Mellon University Bachelor of Science, Computer Science, December 2019 <ul style="list-style-type: none">• GPA : 3.44/4.0• Relevant Coursework: Probabilistical Graphical Model-PhD level(10708)/Intro to Machine Learning-PhD level(10701)/Intro to Machine Learning-Master's level(10601)/Algorithm Analysis(15451)/Complexity Theory(15455)/Machine Learning with Large Datasets(10405)/Modern Regression(36401)/Parallel and Sequential Data Structures and Algorithms(15210)/Intro to Computer Systems(15213)	Pittsburgh
Skills	<ul style="list-style-type: none">• Programming Languages: Python/C/C++/React/Java/Angular/Springt/Matlab/SML/R/GO• Other: AWS Lambda/Pytorch/Terraform	
Work Experience	Zillow, Inc-Summer 2019 <i>Software Engineering Development Intern Zillow Offers Growth Team</i> <ul style="list-style-type: none">• Built a Zillow Offers landing page with React for new construction partner at www.zillow.com/shear.• Wrote an AWS Lambda in Python to update DynamoDB tables in multiple dev environments.• Used NLP technique to extract price related information from Real Estate agents' comments. Teaching Assistant-Fall 2018, Spring 2019, Spring 2020 <i>Machine Learning Department</i> <ul style="list-style-type: none">• Machine Learning with Large Datasets – Graduate Level (Fall 2018, Spring 2019)• Probabilistical Graphical Models – PhD Level (Spring 2020) Morgan Stanley-Summer 2018 <i>Technology Summer Analyst Client Connectivity Service Team</i> <ul style="list-style-type: none">• Worked on building a tool suite for integrators to directly change broker routing rules in smaller southeast Asia market that doesn't have direct trading contract with the company.• Used C++ to create a binary file in the trading system to allow for the trading system to read broker information from database(Sybase) instead of the configuration file.• Created a GUI interface based on Angular/Spring for the integrators and clients to add/delete/edit broker information in the e-Trading system.	
Academic Projects	Efficiency and Fairness of Food Rescue Platforms: An Initial Study–Spring 2019 First Author Poster Presentation and Spotlight Talk at 2019 IJCAI AI for Social Good Workshop <ul style="list-style-type: none">• Conducted data analysis on 412FoodRescue(a local food redistribution organization)'s operational data.• Implemented various machine learning models and feature engineering on the input of the model.• Designed an online matching algorithm of indivisible goods to match food donations to various charity organizations based on fairness in donation weight and number of total rescues received. Improving Efficiency of Volunteer-Based Food Rescue Operations–Fall 2019 Co-First Author Oral Presentation at 2020 IAAI Conference <ul style="list-style-type: none">• Implemented stacking ensemble in Python/Pytorch to predict the claim status of food rescues tasks(redistribution of food waste to charity organization) published on apps for individual volunteers. Method achieved 0.81 AUC, beating the baseline by 0.3.• Working on using survival analysis to model volunteer's behavioral model with the empirical data on the time gaps between rescues that the volunteers have conducted. Using GAT to Predict Specificity Ratio in Offtarget Gene Sequences–Fall 2019 On-going project with Professor Jian Ma and PhD student Ruochi Zhang <ul style="list-style-type: none">• Implementing GAT(Graph Attention Network) in Pytorch to predict the specificity ratio in the off-target sequences from the results of experiments on target editing 109 specific sequences in chromosome 17. Using Deep Kernels in Time Varying Networks for Reverse-Engineering of Gene Interaction-Spring 2019 Course Project for 10708 Probabilistical Graphical Models <ul style="list-style-type: none">• Implemented pairwise Markov Random Field, in joint training with deep kernels using logistic regression and LSTM, to model the time-varying interaction between 588 genes during 66 time steps in Drosophila.• Our results a) correspond to biological assumptions on the interaction activity at different stages of the development of Drosophila given no ground truth in present. b) have shown that deep kernels can achieve faster convergence than the non-parametric RBF kernel.	
Competitions	Zillow Capture the Flag Web Security Challenge First Place	