

Yiwen Yuan

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Education	Carnegie Mellon University	Pittsburgh
	Fifth Year Master in Computer Science, Summer 2020~Spring 2021 <ul style="list-style-type: none">• GPA: 3.8/4.0. Advised by Professor Fei Fang.• Relevant Coursework: Logical Foundations of Cyber-Physical Systems/Graduate Artificial Intelligence/Advanced Deep Learning/Convex Optimization/Graduate Reading and Research	
	Carnegie Mellon University	Pittsburgh
	Bachelor of Science, Computer Science, Fall 2016~Spring 2020 <ul style="list-style-type: none">• GPA: 3.5/4.0• Relevant Coursework: Probabilistical Graphical Model-PhD level/Intro to Machine Learning-PhD level/Algorithm Analysis/Complexity Theory/Machine Learning with Large Datasets/Modern Regression/Parallel Computer Architecture and Programming/Parallel and Sequential Data Structures and Algorithms/Intro to Computer Systems/Mobile Robot Programming Lab	
Skills	<ul style="list-style-type: none">• Programming Languages: Python/C/C++/React/Java/Matlab/SML/R/GO• Other: AWS Lambda/Pytorch/Terraform	
Work Experience	Zillow, Inc-Summer 2019 <i>Software Development Engineering 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 Hidden Markov Model to extract price related information from Real Estate agents' comments.	
	CMU Teaching Assistant-Fall 2018, Spring 2019, Spring 2020, Spring 2021 <i>10605 Machine Learning with Large Datasets(Fall 2018, Spring 2019)/10708 Probabilistical Graphical Models(Spring 2020, Spring 2021)</i> <ul style="list-style-type: none">• Designed homework; held office hours; mentored course projects	
	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.	
Publications	Improving Efficiency of Volunteer-Based Food Rescue Operations Zheyuan Shi*,Yiwen Yuan*,Kimberly Lo,Leah Lizarondo,Fei Fang. Proceedings of the AAAI Conference on Artificial Intelligence, 34 (8):13369–13375, 2020. <ul style="list-style-type: none">• Implemented stacking ensemble in 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.	
	Efficiency and Fairness of Food Rescue Platforms: An Initial Study Yiwen Yuan,Kimberly Lo,Zheyuan Ryan Shi,Leah Lizarondo, Fei Fang. 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.	
Academic Projects & Experiences	Reducing Poaching Risk Through Forest Zoning based on Data Driven Optimization - Spring 2020-Fall 2020 Current project <ul style="list-style-type: none">• Conducted poaching risk factor analysis on the SMART(Spatial Monitoring and Reporting Tool) data in Kabo forest of Republic of Congo.• Implemented multivariate Gaussian Process with monotonicity constraint. Used it as a black box function in a mathematical programming model to make landuse assignments to reduce poaching risks.	