

Timothy X. Wang

Email: twang126@umd.edu

LinkedIn: [in/timothyxwang](https://www.linkedin.com/in/timothyxwang)

Phone: 240.751.7188

Github: [twang126](https://github.com/twang126)

EDUCATION

University of Maryland, College Park

College Park, MD

B.Sc. in Computer Science

May 2020

GPA: 3.99 | QUEST Honors Program | ACES Honors College | Presidential Scholar | National Merit Finalist

SKILLS & COURSEWORK

Coursework: Database Design, Algorithms, Machine Learning, Natural Language Processing, Data Science, Programming Languages, Data Structures, Computer Systems, Object-Oriented Programming, Discrete Structures, Linear Algebra, Unix

Programming: Java, Python, SQL, Spark, C#, MapReduce, Apache Crunch, JavaScript, Hadoop, C, Unix

EXPERIENCE

Lyft | Software Engineering Intern

San Francisco, CA

Aug 2019 – Current

- Implemented improved, distributed workflow to efficiently calculate ETAs, used throughout all of Lyft's core products, for every pairwise geohash pair in all of Lyft's serviced regions that reduced error from existing ETA predictions by 20%
- Productionized updated ETA, elasticity, and pricing machine learning models to better optimize surge pricing
- Improving Kafka, Apache Beam, and Apache Flink streaming infrastructure

Bloomberg L.P. | Software Engineering Intern

New York City, NY

May – Aug 2019

- Engineered distributed PySpark featurization pipelines from scratch that process billions of financial security datapoints
- Developed and deployed scalable, online-learnable anomaly detection machine learning algorithms that help validate every financial security that flows through Bloomberg's daily financial systems
- Researched and implemented advanced sampling methods and unsupervised learning algorithms

Applied Predictive Technologies | Software Engineering Intern

Washington D.C.

June – Aug 2018

- Implemented statistical calculations and model generation in SQL and C# that process over 40% of all credit card transactions in the world
- Developed clustering, hill-climbing, and genetic algorithms to generate control groups
- Leveraged React, Redux, Saga and C# to implement a more iterative workflow for creating statistical models

University of Maryland- Department of Computer Science | Teaching Assistant

College Park, MD

Jan 2017 – Jan 2019

- Undergraduate TA for CMSC132 (Spring 2017): Advanced Java and Data Structures under Professor Tom Reinhardt where I led 2 recitations per week and multiple weekly office hours to reinforce concepts and introduce new material
- Undergraduate TA for CMSC351 (Spring, Fall 2018): Algorithms under Professor Evan Golub and Professor Clyde Kruskal

Sift Science | Software Engineering Intern

San Francisco, CA

June – Aug 2017

- Implemented distributed and scalable Naïve Bayes text classification models in Java that process ~12TB of data
- Developed experimental Ensemble models used to analyze 150 million daily events and better detect online fraud
- Parallelized offline training pipeline with MapReduce that optimized feature extraction runtimes by 95%

RESEARCH

Dynamic Reconfiguration of Computer Systems to Minimize the Effect of Malware

College Park, MD

Sept 2017 – Jan 2019

- Worked alongside Professor Jim Puzilo and other students to research self-learning, software defined networking
- Implemented machine learning systems to ingest signals from user traffic and packet data and predict malware

PROJECTS

Bipartisan (HopHacks @ Johns Hopkins University)

Feb 2017

- A web application that combats misinformation by leveraging machine learning to filter credible news
- Created natural language processing pipeline to tokenize text and extract sentiment and entity analysis