

Timothy X. Wang

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EDUCATION

University of Maryland, College Park

College Park, MD

B.Sc. in Computer Science & Mathematics

May 2020

GPA: 3.98 | QUEST Honors Program | ACES Honors College | Presidential Scholar | National Merit Finalist

SKILLS & COURSEWORK

Coursework: Database Design, Algorithms, Data Science, Programming Languages, Data Structures, Computer Systems, Object-Oriented Programming, Discrete Structures, Linear Algebra, Statistics, Unix

Programming: Java, Python, C, C#, Ruby, MapReduce, Apache Crunch, PySpark, Hadoop, Bash, SQL, Unix

EXPERIENCE

University of Maryland- Department of Computer Science | Teaching Assistant

College Park, MD

Jan – May 2018

- Undergraduate TA for CMSC351: Algorithms under Professor Evan Golub
- Created and graded homework problem sets and exam questions

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 lowered feature extraction runtimes by 95%
- Engineered new machine learning features that characterized user transaction history and improved model performance

University of Maryland- Department of Computer Science | Teaching Assistant

College Park, MD

Jan – May 2017

- Undergraduate TA for CMSC132: Advanced Java and Data Structures under Professor Tom Reinhardt
- Led 2 recitations per week and multiple weekly office hours to reinforce concepts and introduce new material

Cipher Systems | Software Development Intern

Annapolis, MD

Dec 2016 – Feb 2017

- Developed NLP microservice in Java to semantically tag news articles using Stanford's CoreNLP library

ContentAnalytics | Software Engineering Intern

San Francisco, CA

Oct 2016- Jan 2017

- Developed media comparison tool and internal API to improve E-Commerce for multiple Fortune 500 companies

RESEARCH

Dynamic Reconfiguration of Computer Systems to Minimize the Effect of Malware

College Park, MD

Sept 2017 – Present

- 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

Ballmer's Peak

Aug 2017- Current

- Built a web application using Flask and Sqlite3 to host a coding competition

Song-Genre Classifier

Dec 2017

- Implemented Naïve Bayes text classification pipeline from scratch that identifies a song's genre given its lyrics

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

Method to the Madness (BigRedHacks @ Cornell University)

Sept 2016

- Developed a Neural Network from scratch in Java that predicts March Madness collegiate basketball results