

# 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: 4.0/4.0 | QUEST Honors Program | ACES Honors College | Presidential Scholar | National Merit Finalist

## SKILLS & COURSEWORK

**Coursework:** Algorithms, Data Science, Programming Languages, Data Structures, Computer Systems, Object-Oriented Programming, Discrete Structures, Statistics

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

## EXPERIENCE

**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
- Parallelized offline training pipeline with MapReduce that lowered feature extraction runtimes by 95%
- Engineered 100+ new features that 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
- 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
- Engineered data transfer architecture between Amazon S3 and Adobe's Scene7

## RESEARCH

**Dynamic Reconfiguration of Systems to Minimize the Effect of Malware**

College Park, MD

Aug 2017 – Present

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

**University of Maryland- Dept. of Computer Science** | Summer Undergraduate Research Fellow

College Park, MD

May – Oct 2016

- Researched and optimized Pollard's Rho factorization algorithm by approximately 1200%

## PROJECTS & ACTIVITIES

**Ballmer's Peak**

June 2017– Current

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

**Supermodel**

June 2017– Current

- Web application that automates model selection using scikit-learn and GridSearch to generate hyper-tuned models

**Consult Your Community** | Business Analyst

Feb – May 2017

- Provided pro-bono consulting services and machine learning tool to local restaurant dining start-up, Spotluck

**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