# Tommy White

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**♀** Town, ST

websurfin

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# **EXPERIENCE**

#### Research Assistant

#### Dartmouth College/Dartmouth Security and Al Lab

- Developed and formalized novel algorithms in the fields of Collective Classification and Graph Neural Networks.
- Applied these algorithms to Social Network prediction problems.
- Managed datasets with terabytes of data as well as the thousands of computation jobs used to process and analyze this data.

### Junior Developer

#### Amazon.com

San Luis Obispo, CA

- ⊙ Worked as part of an Amazon Prime server team; my code has directly affected millions of transactions.
- Reworked the code deployment pipeline and rollback system to facilitate faster recovery from issues in production code.
- Developed API to facilitate automatic upselling of Prime memberships to customers based on their current membership status, region, and other factors.

# **PROIECTS**

## Social Network Analysis for Cryptocurrency Price Prediction

#### **Dartmouth Security and AI Lab**

## Feb. 2019 - March 2021

- Developed algorithms to predict future prices of top cryptocurrencies by analyzing massive amounts of social media data.
- Organized and monitored tens of thousands of hours of computation time to complete the experiments.
- Presented results at 2019 IEEE International Conference on Blockchain and Cryptocurrencies in Atlanta, GA.

## Counter-terrorism Graph Time Series Analysis **Dartmouth Security and AI Lab**

March 2021

- Explored prediction problems in a social network styled dataset which included thousands of terrorists and hundreds of terroristic factions as members.
- Designed and tested novel algorithms and techniques to use on this uniquely challenging dataset.
- ⊙ Improved predictive performance by generating novel features based on centrality, flow, and balance metrics.

#### See more of my experience/projects at tommy-w.com/

## EDUCATION

## M.S. in Computer Science Dartmouth College, Hanover, NH

Movember 2021

- Research work focused on machine learning as applied to social networks.
- Coursework focused on machine learning, cryptography, and applied computation.

# B.S. in Computer Science Cal Poly, San Luis Obispo, CA

September 2014 – June 2018

- ⊙ Graduated with honors (3.7 GPA).
- Completed minor in Data Science (requiring) 18 specified CS and Statistics courses).
- Developed a foundation in machine learning, software engineering, and statistics.

## PROGRAMMING SKILLS

**Python** Pandas, Numpy, Scipy, SKLearn PyTorch, Keras C/C++ LaTex, Markdown Java R/ggplot JavaScript/CSS

SQL



# TECHNICAL SKILLS

Abstract Problem Solving **Build Systems CLI Tools** Code Profiling Data Visualization Data Driven Analysis Deep Learning **Distributed Computation Functional Programming** Large Scale Computation Linux Machine Learning Object-Oriented Programming Optimization Parallel Computing Shell Utilities Software Design Statistical Modeling and Testing