

Arghya Mukherjee

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EDUCATION

The University of Tulsa – Tandy School of Computer Science

PhD Computer Science, GPA 3.8

Tulsa, Oklahoma, U.S.A.

January 2018 – Present

University of St. Andrews, Department of Computer Science

Post Graduate Degree in Computer Science, Network and Distributed System

Graduated with GPA 3.3 Equivalent

St. Andrews, Fife, U.K.

September 2013 – December 2014

West Bengal University of Technology

Under Graduate Degree in Computer Applications

Graduated with GPA 3.3 Equivalent

Kolkata, India

2009 – 2012

WORK EXPERIENCE

Anti Phishing Working Group (APWG)

Data Curator

Remote

October 2020 – Present

- Collected and analyzed cryptocurrency wallet data involved in scams and crimes
- Created cybercrime taxonomy, clustered wallet data to identify cybercrime groups

The University of Tulsa

Graduate Research Assistant

Tulsa, Oklahoma U.S.A

January 2018 – Present

- Collected and analyzed data in R and Python for doctoral research
- Maintained cyber security research data infrastructure

Adjunct Faculty

May 2021 – Present

- Taught CYB 7163, Cyber Security Practicum

Graduate Teaching Assistant

August 2021 – Present

- Taught CS 2003, Fundamentals of Algorithm and Computer Applications (Java And Python)

- Taught DS 3213, Intro to Data Science

PricewaterhouseCoopers

IT Risk Assurance, Associate

Birmingham, United Kingdom

January 2015 – December 2016

- Performed internal audit as well as assisted organizations to improve risk management and internal controls

PUBLICATIONS AND WORKING PAPERS

Analyzing target based Cryptocurrency Pump and Dump Scheme

Published: *ACM CCS Workshop on Decentralized Finance and Security, 2021, South Korea*

An Examination of the Cryptocurrency Pump-and-Dump Ecosystem

Published: *Information Processing & Management 58(4), 102506. July 2021*

Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3303365

The Economics of Cryptocurrency Pump and Dump Schemes

Presented in: *Workshop on the Economics of Information Security, Harvard University, 2019*

Available at: https://weis2019.econinfosec.org/wp-content/uploads/sites/6/2019/05/WEIS_2019_paper_14.pdf

Measuring life span of elements of cryptocurrency ecosystem (Dissertation)

Evidence of entry and exits of different cryptocurrencies and entities tied up to it grew exponentially since Bitcoin bubble of 2017. The goal is to measure success of currencies, tokens and exchanges since bubble burst.

PROJECTS

Cryptocurrency wallet cluster: Collected more than 600K cryptocurrency wallet addresses involved in scams and frauds to cluster them into criminal groups using ML clustering techniques (K Means, Mean Shift, OPTICS)

Forecasting Models: Multiple projects in forecasting models to predict Covid19 cases, stocks and cryptocurrency prices using Facebook's Prophet forecasting library in R.

Cybercrime Taxonomy: Built taxonomy of cybercrime types using the collected cryptocurrency wallet data collected. Used ML classification techniques to periodically train models for classifying crime events.

SKILLS

Languages: R, Python, SQL, Java, C/C++,MATLAB, Latex

Tools: Stata, MS-Excel, Mongo-DB, PowerBI, Linux