TIANYI CHEN

669-900-2291
ctony@bu.edu
c752334430.github.io

EDUCATION

Boston University, Boston, USA 2017-2019
M.s. in Computer Science GPA: 3.73/4.0

Xi'an Jiaotong University, Xi'an, China 2013-2017
B.Eng. in Software Engineering

PUBLICATIONS

Ming Fan, Jun Liu, Xiapu Luo, Kai Chen, **Tianyi Chen**, Zhenzhou Tian, Xiaodong Zhang, Qinghua Zheng and Ting Liu, "Frequent Subgraph based Familial Classification of Android Malware", *IEEE ISSRE 2016*, ***BEST RESEARCH PAPER AWARD***

RESEARCHS

Research on Densest Subgraph Discovery in Uncertain Graph, Boston University; Boston, USA December 2017 Present

Advisor: Prof. Charalampos (Babis) E. Tsourakakis

- Designed approximation algorithms to solve densest subgraph discovery problem in uncertain graph in polynomial time.
- Used linear programming package GLPK on large-scale uncertain graph to achieve precise solution.
- Collected data from TMDb and constructed open-source uncertain graph datasets.

Research on Functional Object-Oriented Graph Automation Platform, Harvard University; Boston, USA June 2017 Present

Advisor: Prof. Boris Kozinsky

- Investigated on the performance of Neo4j, a NoSQL graph database, and deployed it to improve query efficiency compared with PostgreSQL.
- As a full stack developer of functional graph automation platform, designed and built front-end GUI with HTML, CSS and JavaScript. Built server on Google Cloud with Python Flask to handle requests.
- Designed and implemented remote calculation architecture.

Research on Detection and Classification of Android Malicious Software, Xi'an Jiaotong University; Xi'an, China December 2014 June2017

Advisor: Prof. Ting Liu

- Managed data collection of permissions and sensitive APIs used by 10000 malicious Android APP samples, de-compiled APPs and analyzed Smali(assembler level) codes.
- Investigated function-call relation graphs built from APP samples, and participated in discovery of sensitive subgraph structure.
- Trained random forest model with API features and sensitive subgraph features.

INTERNSHIPS

Research Intern, Fudan University; Shanghai, China July 2016 August 2016

Advisor: Prof. Yinsheng Li

- Analyzed user requirements of Sand Table for Hotel operation, an education application sold to hundreds of Colleges in China.
- participated in Android client design and programming.
- Applied MySQL database and implemented transactions.

Back-end Engineer Intern, Sichuan Hwadee Co., Ltd; Sichuan, China

February 2016 March 2016

- Participated in second-hand online trading platform project and applied iterative development.
- Designed database and realized model layer, used MVC model.
- Applied Java Spring/Structs/Hibernate framework.

SKILLS

Programing Languages:	C++, Java, Python, Matlab, HTML, CSS
Graph Analysis:	Neo4J, NetworkX, Gremlin, Cypher
Machine learning:,	TensorFlow, numPy, Pandas, Sk-Learn, WEKA
Distributed system:	Docker, Hadoop, Hive, Spark