

HANNAH CHEN

Rice Hall 336, 85 Engineer's Way, Charlottesville, VA, 22903
yc4dx@virginia.edu | hannahxchen.github.io

EDUCATION

University of Virginia <i>PhD in Computer Science (GPA: 4.0/4.0)</i>	Charlottesville, VA Aug. 2019 – Present
Chang Gung University <i>BS in Information Management (GPA: 3.53/4.0, Last 60 GPA: 4.0/4.0)</i>	Taoyuan, Taiwan Sep. 2014 – Jun. 2018

RESEARCH EXPERIENCE

Research Intern <i>Cryptography and Privacy Group, Microsoft Research</i> <ul style="list-style-type: none">Investigated privacy leakage in code generation modelsExperimented with membership inference and training data reconstruction attackProposed several mitigation methods to improve current pipeline	Feb. 2022 – May. 2022 Redmond, WA
Machine Learning Intern <i>Cybersecurity Technology Institute, Institute for Information Industry</i> <ul style="list-style-type: none">Exploratory data analysis of Tweets from security expertsBuilt binary classifiers for Secbuzzer System to identify security related TweetsBuilt and trained Word2Vec and Doc2Vec models to find similarity between contextsBuilt classification pipeline for streaming data stored in Elasticsearch	Jun. 2018 – Dec. 2018 Taipei, Taiwan
Undergraduate Research Assistant <i>Lab of Ubiquitous Security and Applications, Chang Gung University</i> <ul style="list-style-type: none">Participated in Prof. Chien-Lung Hsu's IoT security research projectImplemented device authentication using NTRU encryption in JavaProgrammed Raspberry Pi sensors to capture environmental data	Jul. 2017 – Jun. 2018 Taoyuan, Taiwan

TEACHING EXPERIENCE

CS6501/CS4501 Data Privacy - Graduate Teaching Assistant <i>University of Virginia</i>	Fall 2022
CS6501 AI for Social Good - Graduate Teaching Assistant <i>University of Virginia</i>	Fall 2021
CS6501 Natural Language Processing - Graduate Teaching Assistant <i>University of Virginia</i>	Spring 2021
DS5001 Exploratory Text Analytics - Graduate Teaching Assistant <i>University of Virginia</i>	Fall 2020
Python Programming - Teaching Assistant <i>Chang Gung University</i>	Spring 2018

AWARDS & HONORS

UVA Engineering Dean's Scholar Fellowship (2019 – 2024)
Student member of IEEE HKN Gamma Pi Chapter at UVA (2021)
Three times Presidential Awards (2016 Fall, 2017 Spring, 2017 Fall; Top 3% of class)
First runner-up of 2014 Chang Gung University English Speech Contest

PUBLICATIONS

Balanced Adversarial Training: Balancing Tradeoffs Between Oversensitivity and Undersensitivity in NLP Models

Hannah Chen, Yangfeng Ji, David Evans
EMNLP 2022, October 2022

Finding Friends and Flipping Frenemies: Automatic Paraphrase Dataset Augmentation Using Graph Theory

Hannah Chen, Yangfeng Ji, David Evans
EMNLP 2020 (Findings), November 2020

Pointwise Paraphrase Appraisal Is Potentially Problematic

Hannah Chen, Yangfeng Ji, David Evans
ACL 2020 Student Research Workshop, July 2020

PROJECTS

Ensemble Embedding of Information Infusion Model for Threat Intelligence Correlation Sep. 2018 – Dec. 2018

- Integrated crowdsourcing information to gain further insight into ongoing cyber attacks
- Correlated Common Vulnerability and Exposures (CVE) with the associated tweet discussions using information retrieval and ensemble learning
- Developed sec2Vec embedding method. (Github repository: [sec2vec](#))

Security-Enhanced IoT/Wearable Wireless Sensor Network Jul. 2017 – Jun. 2018

- Designed new lightweight cryptosystems for IoT devices
- Improved IEEE 802.15.6 Authentication Association and Block-adding with NTRU

Health Monitoring and Management System for Elderly Care Mar. 2017 – Dec. 2018

- Analyzed the elders' health and mental conditions by tracking the data of their activities and emotions
- Built stroke testing and activity check-in module using facial and speech recognition
- Built with Node.js, ExpressJS, HTML/CSS, JavaScript, MongoDB, and Face Recognition APIs

SERVICE

President of Taiwanese Graduate Student Association (TGSA) at UVa (2022-2023)

Reveiwder of NLPCC 2021