Zhen Zhang

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EDUCATION

Johns Hopkins University — Whiting School of Engineering, *Baltimore, MD*
Ph.D. in Computer Science   *Sep. 2018 – .*
GPA: 4.00 / 4.00

Lehigh University — P.C. Rossin College of Engineering & Applied Science, *Bethlehem, PA*
Ph.D. in Computer Science   *Aug. 2016 – Jul. 2018*
GPA: 3.97 / 4.00

Zhejiang University of Technology, *Hangzhou, China*
B.E. in Software Engineering   *Sep. 2011 – Jul. 2015*
GPA: 3.86 / 4.00

RESEARCH PROJECTS

Correlating Description and Permission with Transfer Learning
Guide: Dr. Yinzhi Cao   *May. 2018 – Jun. 2019*
- Applied Neural Network models include DAN, CNNs, word-embeddings and LSTMs
- Applied novel domain selection algorithm which is an important for performance boosting
- Applied Transfer Learning techniques and achieved around 82% precision on average
- Created sentence-to-permission data-sets for Android, IFTTT and Chrome Extension platforms

Embedding Word Relationship
Guide: Dr. Sihong Xie   *Sep. 2017 – Mar. 2018*
- Proposed encoding word relationship, modification, into word-Embeddings space
- Proposed new loss function for word embedding training to encode modification relationship in sentences
- Proposed novel Negative Sampling idea for word-embedding training to improve result quality

Towards a Secure Zero-rating Framework with Three Parties
Guide: Dr. Yinzhi Cao   *Jan. 2017 – May. 2018*
- Implemented proxy-based attack module to attack existing zero-rating system
- Implemented anti-IP-whitelist attack to attack theoretical IP based defense
- Implemented network packet parsing, packet integrity and authenticity checking, and packet control modules at control plane of Software-defined networking (SDN)
- Given a presentation at USENIX Security 2018

WORK EXPERIENCE

State Street, *Hangzhou, China*
Software Engineer   *Aug. 2015 – Jan. 2016*
- Integrated Cloakware into Intranet OAuth. System.
- Developed a Services Monitoring System based on open-source Watchmen (P.O.C. project)
- Deployed Message Queue system with ActiveMQ
- Combined Message Queue with Authentication System. (P.O.C project)

LogisLand, *Hangzhou, China*
Software Engineer Intern   *Jul. 2014 – Oct. 2014*
- Implemented a web spider to collect trading data using Python
- Implemented the data pulling module of the trading system using C++

SKILLS & OTHERS

Machine Learning: Linear Regression, Neural Networks, Word Embeddings model, Adversarial Learning, Kernel Method, Transfer Learning
Programming Languages: proficient in Python, Java. Experienced with C++, Javascript, Matlab
Frameworks: Numpy, Pytorch, Tensorflow, sklearn
Interests: computer games, assemble/dismantle electronic devices, learning mathematical concepts
Teaching Assistant: CS601.220 Intermediate Programming
Open Courses: Computational Investing, Part I(2013), The Data Scientist's Toolbox(2014)