Le (Leo) Zhang

https://lezhangisu.github.io

EDUCATION

Iowa State University — Ames, IA
PhD in Computer Engineering — *Expected Dec. 2019*

University of Illinois, Springfield — Springfield, IL
Master of Science in Computer Science; GPA: 3.67/4.0 — *Aug 2011 – May 2013*

Shanghai Jiao Tong University — Shanghai, China
Bachelor of Engineering in Mechanical Engineering; GPA: 3.3/4.0 — *Sep 2007 – Jun 2011*

EXPERIENCE

Knowledge-Centric Software Lab — Ames, IA
Graduate Research Assistant — *Sep 2017 - Present*

- Collaborated with Dr. Suraj Kothari and his team to create Atlas using Java, to allow users to visualize their Java and C programs in a structured manner via Eclipse.
- Analyzed vulnerable software and conducted exploits using Atlas and Java/Python programs during Engagement 4 and 5 in "STAC", a DARPA project. Successfully located vulnerabilities in 3 software.

CSAFE — Ames, IA
Graduate Research Assistant — *Jun 2016 - Aug 2017*

- Enhanced TaintDroid with file level taint tracking by modifying Dalvik VM I/O libraries in Android source code.
- Developed DroidSmart using Python to monitor private user information leakage caused by vulnerable APPs.

Cybersecurity Lab — Ames, IA
Graduate Research Assistant — *Apr 2015 - May 2016*

- Designed and implemented "SybilSCAR", a Sybil detection algorithm which combines the advantages of both Random-Walk based and Loopy Belief Propagation based algorithms. C++ source code available on Github.
- Created "SybilDirect", a structure-based Sybil detection algorithm designed for directed graphs.
- Re-implemented algorithms "SybilBelief" and "SybilRank". Released C++ source code on Github
- Published research papers on top-tier conferences INFOCOM and WWW, and top-tier journal TNSE.

Office of the Inspector General, Illinois HFS — Springfield, IL
Data Analyst Intern — *Aug 2012 - May 2013*

- Conducted data-driven investigations on welfare fraud using SAS, MySQL, and Teradata.
- Improved 15% in work efficiency by reconstructing data structures in OIG database systems.

PROGRAMMING SKILLS

- **Strong Expertise**: Python • Java • C++ • C • Lua • Shell
- **Working Knowledge**: JavaScript (Node.js) • TensorFlow • R • PHP • HTML • SQL • Qt • Matlab

PROJECTS

- **CodeAnalyzer**: An extension of Atlas written in Java to help users to analyze if a given code is well-structured.
- **RefParser**: A toolkit written in Python to help researchers in collecting reference paper information in Bibtex format.
- **WZ-Assist**: A mobile game assistant algorithm written in Lua for game "Kings of Glory". The core algorithm includes image recognition and automatic decision-making features. It has 5k+ downloads and 100k+ runs.

PUBLICATIONS

- **Zhang, L.**, Wang, B., Jia, J., Gong, N. "Structure-based Sybil Detection in Social Networks via Local Rule-based Propagation" IEEE Transactions on Network Science and Engineering (TNSE), 2018, to appear.

- Wang, B., **Zhang, L.**, Gong, N. "SybilSCAR: Sybil Detection in Online Social Networks via Local Rule based Propagation." IEEE Conference on Computer Communications (INFOCOM), 2017.

- Jia, J., Wang, B., **Zhang, L.**, Gong, N. "AttriInfer: Inferring User Attributes in Online Social Networks Using Markov Random Fields." 26th International World Wide Web Conference (WWW), 2017.