Yufei Jiang   Curriculum vitae

CONTACT INFORMATION

College of Information Sciences and Technology
The Pennsylvania State University   Mobile: +1-814-880-2305
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State College, PA 16802 USA

RESEARCH INTERESTS

Software Security, Mobile Security, Software Engineering, Software Analysis, Programming Languages, and Software Testing.

SKILLS

Programming Languages: Java, C++, C, Python, Prolog, Scala, JavaScript, Shell.
Methodology: OOP, RESTful Architecture, CI/CD, Scrum, Agile Development, MVC
Web Framework: Apache Web Server, Java Spring, Swagger, JAX-RS
Data: MySQL, Hadoop, TensorFlow, MongoDB
Testing: JUnit, Mockito, Cucumber, QTP, Guitar
Bytecode Analysis Platform: Soot, WALA
Software Obfuscation: Code Virtualizer, VMProtect

EDUCATION

The Pennsylvania State University, State College, PA, USA
Ph.D. candidate, College of Information Sciences and Technology,
Aug. 2011-Present   GPA: 3.8/4.0
- Major: Information Sciences and Technology
- Area of Research: Software Analysis, Software Security, Mobile Security, Software Engineering, Building Information Modeling(BIM) Computing

Nanjing University, Nanjing, P.R. China
B.S., Software Institute, Sep. 2007-Jun. 2011   GPA: 86/100
- Major: Software Engineering
- Thesis Topic: Automatically Repairing QTP Test Scripts of GUI Application in Regression Test

PROFESSIONAL EXPERIENCE

Yahoo!, Sunnyvale, CA, USA.

Internship   May–August 2016
- Improved Yahoo membership production data traffic anti-abuse classification by building data pipeline on Yahoo account registration data and training deep learning models.
- Queried the reported reputation of entities in the traffic from external sources including Facebook ThreatExchange.
- Awarded best intern project and presented at Yahoo all hands meeting.

Yahoo!, Sunnyvale, CA, USA.

Internship   May–August 2015
- Designed and implemented a new internal account creation web service for quality assurance purpose in a team of four.
- Gained first-hand experience on industry-strength workflows including agile development, test driven development, CI/CD pipelines, advanced git collaboration model, sprint planing, daily stand-up meeting, code review, architecture review, and Scrum.

Academic Service

External Reviewer of ENASE2015, ICSE-SEIP2016
Invited Talks at The University of Texas at Dallas, Quick Biology Inc.

Open Source Wonderland Community

Open Source Community Member and Contributor   2009-2010

SELECTED RESEARCH PROJECTS

JRed: Removing unused methods and classes from both Java applications and Java Runtime Environment(JRE) to reduce the size and improve the security by combining interprocedural static data flow analysis and dynamic analysis. *Media coverage: Bloatware as a security risk: Researchers innovative ways to combat the scourge*

JCut: Helping developers and users perform feature and functionality based software customization by using interprocedural analysis and slicing technology.

Babel: Obfuscating the software program by mixing two programming-paradigm-heterogeneous languages.

BIMserver Query Generator: Automatically generating Java source code to help energy efficient building designer perform BIMserver query by parsing architecture engineering domain formatted documents.

HONORS AND AWARDS

NDSS 2015 Student Grants Award, 2015, Network and Distributed System Security (NDSS) Symposium, Internet Society.

Robert W. Graham Endowed Graduate Fellowship, 2011-2012, College of Information Sciences and Technology, the Pennsylvania State University.

Excellent Project Award in CHIPS (China Innovation Program for Students) Contest, 2009-2010, sponsored by Sun Microsystems and China Ministry of Education.

Excellent Project Award in Citi Cup Financial & Information Technology Application Contest, 2010, sponsored by Citigroup, Inc.

Renmin Scholarship, 2007-2010, Nanjing University.

Speciality Scholarship for Social Practice, 2008, Nanjing University.

ACADEMIC APPOINTMENTS

Research Assistant   August 2011 – July 2013
College of Information Sciences and Technology,
The Pennsylvania State University

Teaching Assistant   August 2013 – Present
College of Information Sciences and Technology,
The Pennsylvania State University
- IST 451 Network Security
- IST 220 Networking and Telecommunications

PUBLICATIONS

Xiao Liu, **Yufei Jiang**, Dinghao Wu, Lawrence Wu. **Natural Shell: An Assistant for End-user Scripting**, The International Journal of People-Oriented Programming (IJPOP). Under Review.

Yufei Jiang, Dinghao Wu, Peng Liu. **JRed: Program Customization Using Iterative Hybrid Static and Dynamic Analysis** in *The 40th IEEE Computer Society International Conference on Computers, Software & Applications (COMPSAC2016)*, Atlanta, Georgia, USA, June 10-14, 2016.

Yufei Jiang, Xiao Liu, Fangxiao Liu, Dinghao Wu, Chimay J. Anumba. **An Analysis of BIM Web Service Requirements and Design to Support Energy Efficient Building Lifecycle**. Journal of Buildings, Vol. 6, pp. 19-43, 2016.

Pei Wang, Shuai Wang, Jiang Ming, **Yufei Jiang**, Dinghao Wu. **Translingual Obfuscation** in *IEEE European Symposium on Security and Privacy (Euro S&P 2016)*, Saarbrcken, Germany, March 21-24, 2016.

Yufei Jiang, Can Zhang, Dinghao Wu, Peng Liu. **A First Step Towards Feature-based Software Customization** in *Proceedings of the 17th IEEE High Assurance Systems Engineering Symposium (HASE 2016)*, Orlando, Florida, USA, January 7-9, 2016.

Yufei Jiang, Nan Yu, Jiang Ming, Jason W. DeGraw, Sanghoon Lee, Abdou Jallow, Dinghao Wu, John I. Messner, John Yen, and Prasenjit Mitra. **Automatic Building**

Information Model Query Generation. Journal of Information Technology in Construction (ITCon), Vol. 20, pp. 518-535, 2015.

Yufei Jiang, Can Zhang, Dinghao Wu, Peng Liu. **A Preliminary Analysis and Case Study of Feature-based Software Customization (Extended Abstract)** in *2015 IEEE International Conference on Software Quality, Reliability and Security (QRS2015)*, Vancouver, Canada, August 3-5, 2015.

Yufei Jiang, Nan Yu, Jiang Ming, Lannan Luo, Chong Zhou, Sanghoon Lee, Abdou Jallow, Prasenjit Mitra, John Yen, Robert Leicht, John I. Messner, and Dinghao Wu. Poster **Simplify, Automate, and Integrate the BIM Data Exchange Process**. in *2013 EEB Hub Poster Session and Reception*, The Pennsylvania State University - University Park, PA, USA, April 16, 2013.

Yufei Jiang, Nan Yu, Jiang Ming, Lannan Luo, Chong Zhou, Sanghoon Lee, Abdou Jallow, Prasenjit Mitra, John Yen, Robert Leicht, John I. Messner, and Dinghao Wu. Poster **Subtask 3.2: Building Information Modeling (BIM) Data Hub**. in *2013 Building SyENERGY - The EEB HUB Spring Conference*, The Navy Yard - Philadelphia, PA, USA, March 20-22, 2013.

Nan Yu, **Yufei Jiang**, Lannan Luo, Sanghoon Lee, Abdou Jallow, John Yen, John Messner, Robert Leicht and Dinghao Wu. **Integrating BIMserver and OpenStudio for Energy Efficient Building**. in *2013 ASCE International Workshop on Computing in Civil Engineering (IWCCE)*, University of Southern California , Los Angeles, CA, USA, June 23-25, 2013.

Yufei Jiang, Jiang Ming, Dinghao Wu, John Yen, Prasenjit Mitra, John I. Messner, and Robert Leicht. **BIM Server requirements to support the energy efficient building lifecycle**. in *2012 ASCE International Workshop on Computing in Civil Engineering (ASCE 2012)*, Clearwater Beach, FL, June 17-20, 2012.

Yufei Jiang, Yuan Huang and Ruizhi Gao. **The Video of Xland: Two Core Use Cases of 3D Blog**. in *Videos Program of the 2011 ACM Conference on Computer Supported Cooperative Work (CSCW 2011)*, Hangzhou, China, March 19-23 2011.