WENYUAN XU

✉ wenyuan.xu@cs.au.dk | ⎇ anemone95 | wenyuanxu.net | ☎ +45 50341971

Education

Aarhus University	Aarhus, Denmark
Ph.D. Computer Science	*Aug. 2022 – Now*
Nanjing University	Nanjing, China
M.Sc. School of Software Engineering	*Sept. 2018 – Jun. 2020*
Yangzhou University	Yangzhou, China
B.Sc. College of Information Engineering	*Sept. 2014 – Jun. 2018*

Research Experience

Professor Anders Møller's Group(CASA)	Aug. 2020 – Now
Intelligent Software Security Testing	*Aarhus, Denmark*

- Research Project
  - ✳ Detecting Malicious JavaScript Software with Static Resource Analysis
  - ✳ Securing node.js programs with static resource analysis
- Product
  - ✳ Jelly, Jelly is a static analyzer for performing call graphs construction and vulnerability exposure analysis. Please note that I am working on a private branch so you won't see me show up in contributors right now.
- Publications
  - ✳ Mathias Rud Laursen, Wenyuan Xu, Anders Møller. Reducing Static Analysis Unsoundness with Approximate Interpretation. PLDI 2024, DOI: 10.1145/3656424

Professor Zhenyu Chen's Group(iSE Lab)	Sept. 2018 – Jun. 2018
Intelligent Software Security Testing	*Nanjing, China*

- Research Project
  - ✳ Human-machine collaborative mobile application testing based on comprehensible information fusion
  - ✳ Exploring mobile application testing technology based on AI middle platform
  - ✳ Exploring Key Technologies to Improve the Detecting Ability for Auto-dispatching Software's Security Vulnerabilities and Risks.
- Product
  - ✳ MLBasedSAST, a Java Vulnerability Scanner combined with traditional taint analysis and machine learning technique. Please refer to my graduate thesis for more information
  - ✳ ApkSec, A framework for Android APK security analysis
- Chinese Patent
  - ✳ A mutation-based fuzzy testing method for smart contracts (2019100516304)
  - ✳ A method to predict Android source code's risk level (201810092876.1)

Professor Xiaobing Sun's Group(Risame Lab)	May 2016 – Jun. 2018
Software Recommendation System	*Yangzhou, China*

- Research Project
  - ✳ Exploring Key Techniques in Change Analysis and Prediction based on Mining Hybrid Software Data
- Chinese Patent
  - ✳ A Personalized Software Recommendation Method for Open Source Community (201610486067.X)
- Publications

* **Wenyuan Xu**, Xiaobing Sun, Xin Xia, and Xiang Chen. Scalable Relevant Project Recommendation on GitHub. In Proceedings of the 9th Asia-Pacific Symposium on Internetware (Internetware), 2017. Association for Computing Machinery, New York, NY, USA, Article 9, 1–10. DOI:10.1145/3131704.3131706

* **Wenyuan Xu**, Xiaobing Sun, Jiajun Hu and Bin Li, REPERSP: Recommending Personalized Software Projects on GitHub. In 2017 IEEE International Conference on Software Maintenance and Evolution (ICSME, Tool Demo), 2017, pp. 648-652. DOI: 10.1109/ICSME.2017.20

* Xiaobing Sun, **Wenyuan Xu**, Xin Xia, Xiang Chen and Bin Li . Personalized project recommendation on GitHub. Science China Information Sciences, 61, 050106, 2018. DOI:10.1007/s11432-017-9419-x (I'm the first author except my supervisor)

Working Experience

Security Engineer (SDL)
Jul. 2020 – Present

Taobao (China) Software Co., Ltd. Alibaba Group   *Hangzhou, Zhejiang, China, full-time*
- Using static and dynamic analysis to improve web software security.
- Building our Benchmark for evaluating analysis tools. Partically opened source in taint-benchmark.

Security Engineer
Jul. 2019 – Sept. 2019

Taobao (China) Software Co., Ltd. Alibaba Group   *Hangzhou, Zhejiang, China, full-time*
- Research on software vulnerabilities, especially 0-day or 1-day. I need to write exploits, find some way to detect them, and consider how to repair them.

Extracurricular Activities and Awards

- Team rank 1/? in KTH-Chalmers-Aarhus CTF challenge, 2023

- Team rank 21/570 in Fireshell CTF, 2019

- Individual rank in 198/4909 in DDCTF, 2019

- Team rank 52/3263 in DIAN FENG Geek CTF, 2018

- Outstanding graduates at Yangzhou University, 2018

- The second price in excellent undergraduate graduation project in Jiangsu Province, 2018

- National Scholarship, both 2016 and 2017

- The second price in LAN QIAO Collegiate Programming Contest, 2017

- Individual rank 121/2000 in China Information Security Game, 2015

- The second price in CUMCM (China Undergraduate Mathematical Contest in Modeling), 2015

- The second price in China Collegiate Computer Program Design Contest, 2014

- The second price in Tianyi Cup CTF in Jiangsu Province, 2014

Research Interests

- Static or Dynamic Programming Analysis

- Program and System Security

- AI for Security

Teching Experience

- Compiler, 2022 Autumn