

MILES FRANTZ

CONTACT INFO

Email: milesfrantz at acm.org

Phone: 513-480-3169

RESEARCH INTERESTS

Software security applications, secure and proactive coding techniques, proven program verification and validation techniques, malware program analysis;

Software Engineering techniques, practices, development lifecycle, testing techniques;

Machine learning, deep neural network, applications within security and statistical analysis;

EDUCATION

Ph.D., Department of Computer Science, **Virginia Polytechnic Institute and State University**, Blacksburg, VA May 2023

Advisor: *Dr. Daphne Yao*, Professor of Computer Science.

M.S., Department of Computer Science, **Virginia Polytechnic Institute and State University**, Blacksburg, VA May 2020

Advisor: *Dr. Daphne Yao*, Professor of Computer Science.

B.S., College of Engineering And Applied Science, **University of Cincinnati**, Cincinnati, OH April 2018

EMPLOYMENT

Department of Computer Science, Virginia Tech, Blacksburg, Virginia, 07/31/2020, Present
Graduate Teaching Assistant

Oracle, Brisbane, Australia, 05/01/2020, 07/01/2020
Researcher
Due to Covid the internship was post-poned.

Department of Computer Science, Virginia Tech, Blacksburg, Virginia, 07/31/2019, 07/31/2020
Graduate Research Assistant

Worldpay from FIS, Symmes Township, Ohio, 05/03/2019, 07/31/2019
Software Engineer

Department of Computer Science, Virginia Tech, Blacksburg, Virginia, 10/01/2018, 05/03/2019
Graduate Research Assistant

Department of Computer Science, Virginia Tech, Blacksburg, Virginia, 07/01/2018, 12/19/2018
Graduate Teaching Assistant

Worldpay from FIS, Symmes Township, Ohio, 01/09/2017, 08/12/2017
Software Engineer

Worldpay from FIS, Symmes Township, Ohio, 05/2016, 08/2016
Software Engineer

Worldpay from FIS, Symmes Township, Ohio, 08/2015, 01/2016
Software Engineer

Worldpay from FIS, Symmes Township, Ohio, 01/2015, 04/2015
Software Engineer

MENTORING

Virginia Tech Computer Science Department,
Unlisted, Undergraduate in Computer Science and Psychology, 08/29/2020 - Present

Virginia Tech Computer Science Department,
Jason, Undergraduate in Computer Science, 06/08/2020 - 08/22/2020

Virginia Tech Computer Science Department,

<i>Unlisted</i> , Undergraduate in Computer Science, Worldpay from FIS,	01/22/2020 - 05/30/2020
<i>Unlisted</i> , Undergraduate in Computer Science, Worldpay from FIS,	01/09/2017 - 08/12/2017
<i>Unlisted</i> , Contractor at Worldpay from FIS,	01/09/2017 - 08/12/2017

SELECT LEADERSHIP ACTIVITIES

1. **Vice President of *Graduate Student Council* from 2020 to Now**
2. **Member of *Order of The Engineer* from 2018 to Now**

PEER-REVIEWED CONFERENCES/WORKSHOPS

3. CryptoGuard: High Precision Detection of Cryptographic Vulnerabilities in Massive-sized Java Projects. Sazzadur Rahaman, Ya Xiao, Sharmin Afrose, Fahad Shaon, Ke Tian, Miles Frantz, Danfeng (Daphne) Yao, Murat Kantarcioglu. In *Proceedings of the ACM Conference on Computer and Communications Security (CCS)*.. November 2019.

Google Scholar: <https://scholar.google.com/citations?user=RKKj9VgAAAAJ>

SELECT PROJECTS

- For Software Security,
 1. Cryptoguard further enhancements for improving usability in an deployment-quality static code analyzer.
<https://github.com/franceme/cryptoguard>
 2. Gradleguard, a gradle plugin that utilizes and supplies Cryptoguard scanning capabilities to the build process.
<https://github.com/franceme/gradleguard>
 3. Mavenguard, a maven plugin that utilizes and supplies Cryptoguard scanning capabilities to the build process.
<https://github.com/franceme/mavenguard>
- For Machine Learning,
 1. WaveNetExploration, replicating an existing papers work and to add specialized data in it.
<https://github.com/franceme/WaveNetExploration>

POSTERS

1. Deployment-quality and Accessible Solutions for Cryptography Code Development. Sazzadur Rahaman, Ya Xiao, Sharmin Afrose, Ke Tian, Miles Frantz, Na Meng, Barton P. Miller, Fahad Shaon, Murat Kantarcioglu, Danfeng (Daphne) Yao. In *ACM SIGSAC Conference on Computer and Communications Security*.. November 2019.