Savvas Savvides

Fortanix
444 Castro St, #305
Mountain View, CA 94041

EMAIL: savvas.savvides@fortanix.com
GITHUB: ssavvides || SKYPE: savvas_savvides
LINKEDIN: https://www.linkedin.com/in/ssavvides

Interests

My interests span the areas of information security, distributed systems and cloud computing with an emphasis on secure and efficient distributed computations. My most recent projects revolve around using trusted execution environments, to enable efficient privacy-preserving data analytics in untrusted clouds.

Positions

Software Engineer 09/2020 -
Fortanix, Mountain View, CA, USA
Working on next-generation cloud computing security.

Software Engineer Intern 08/2019 - 12/2019
Oasis Labs, San Francisco, CA, USA
Developed the infrastructure for enabling privacy-preserving off-chain compute services in the Oasis Labs blockchain network using Intel SGX.

Security Research Engineer Intern 05/2018 - 08/2018
Fortanix, Mountain View, CA, USA
Developed a secure consensus algorithm based on the Raft protocol using Intel SGX.

Research Summer Intern 06/2015 - 09/2015
IBM T J Watson Research Center, New York, USA
Research on estimating the execution-time of Apache Spark applications.

Technical Skills

Operating Systems	OSX, Unix (Linux), MS Windows, Raspbian
Programming Languages	Java, Python, Rust, Scala, C, Bash
Distributed & Stream Processing Frameworks	Apache Spark, Apache Hadoop, Apache Flink Apache Pig, Apache Hive, Apache Storm, Etcd (Raft)
Platforms	Amazon EC2, MS Azure, FIT IoT Lab

Education

Ph.D. in Computer Science, Purdue University, West Lafayette, IN, USA 08/2020
Thesis: *Practical Confidentiality-Preserving Data Analytics in Untrusted Clouds*
Advisor: Patrick Eugster

M.S. in Computer Science, New York University, New York City, NY, USA 06/2013
Thesis: *Analyzing System Call API behavior on different POSIX platforms*
Advisor: Justin Cappos

B.S. in Computer Science, University of Manchester, Manchester, UK 06/2011
Advisor: Howard Barringer

Awards, Fellowships, and Honors

Oasis Labs Fellowship 2019
Oasis Labs

AWS Cloud Credits Award for Research 2017 - 2018
Amazon

A. G. Leventis Scholarship 2013 - 2014
A. G. Leventis Foundation

"24 Hours of Good, New York Hackathon", first place 2012
Google

Fulbright Scholarship 2011 - 2013
Fulbright - Institute of International Education

T.I.P. Grant 2011 - 2013
Graduate School of Arts and Science, New York University

Kilburn Final Year Performance Award 2011
University of Manchester

Kilburn Scholarship 2008 - 2011
University of Manchester

Cyprus State Scholarship 2008 - 2011
Republic of Cyprus

14th National Olympiad in Informatics, fourth place 2006
Cyprus Computer Society

Publications

Conference Articles

[C6] S. Savvides, D. Khandelwal, and P. Eugster. Efficient Confidentiality-Preserving Data Analytics over Symmetrically Encrypted Datasets. In *45th International Conference on Very Large Data Bases 2020 (VLDB'20)*, September 2020.

[C5] D. Ulybyshev, A. Alsalem, B. Bhargava, S. Savvides, G. Mani, and L. Ben-Othmane. Secure data communication in autonomous v2x systems. In *3rd IEEE International Congress on Internet of Things 2018 (ICIOT'18)*, July 2018.

[C4] S Savvides, J Stephen, M Ardekani, V Sundaram, P Eugster. Secure Data Types: A Simple Abstraction for Confidentiality-Preserving Data Analytics. In *8th ACM Symposium on Cloud Computing 2017 (SoCC'17)*, September 2017.

[C3] M Hauck, S Savvides, P Eugster, M Mezini and G Salvaneschi. SecureScala: Scala embedding of secure computations. In *7th ACM Scala Symposium 2016 (SCALA'16)*, Octomber 2016.

[C2] J. Stephen, S. Savvides, V. Sundaram, M. Ardekani and P. Eugster. STYX: Stream Processing with Trustworthy Cloud-based Execution. In *7th ACM Symposium on Cloud Computing 2016 (SoCC'16)*, September 2016.

[C1] J. Stephen, S. Savvides, R. Seidel and P. Eugster. Program Analysis for Secure Big Data Processing. In *29th IEEE/ACM International Conference on Automated Software Engineering (ASE'14)*, September 2014.

Magazine Articles

[M1] P. Eugster, S. Kumar, S. Savvides, J. Stephen. Ensuring Confidentiality in the Cloud of Things. *IEEE Pervasive Computing – Special Issue - IoT Communication*, Jan/Mar 2019

Workshop Articles

[W1] J. Stephen, S. Savvides, R. Seidel and P, Eugster. Practical Confidentiality Preserving Big Data Analysis. In *USENIX Workshop on Hot Topics in Cloud Computing 2014 (HotCloud'14)*, June 2014.

Theses Articles

[T2] S. Savvides. Practical Confidentiality Preserving Data Analytics in Untrusted Clouds. Ph.D. Thesis, Purdue University, Aug 2020.

[T1] S. Savvides. Parsing and Analyzing POSIX API behavior on different platforms. Master's Thesis, New York University, Aug 2013.

Academic Service

External Reviewer

1. ACM/IFIP/USENIX International Middleware Conference (Middleware 2019)
2. International Conference on Formal Techniques for Distributed Objects, Components, and Systems (FORTE 2019)
3. ACM/IFIP/USENIX International Middleware Conference (Middleware 2018)
4. ACM International Conference on Distributed and Event-based Systems (DEBS 2018)
5. International Conference on Principles of Distributed Systems (OPODIS 2017)
6. European Conference on Object-Oriented Programming (ECOOP 2017)
7. ACM/IEEE International Conference on Software Engineering (ICSE 2017)
8. ACM Conference on Object-Oriented Programming, Systems, Languages, and Applications (OOPSLA 2016)
9. IEEE International Conference on Distributed Computing Systems (ICDCS 2014)