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Akshith Gunasekaran

Education

PhD in CS, *Oregon State University, Corvallis.* **expected 2022**

Area of Focus: System Security, Applied Cryptography, AI

Advisors: Rakesh Bobba, Yeongjin Jang

Coursework: CS Theory (algorithms, graph theory), Security (operating systems, system security, cryptography), AI (artificial intelligence)

BTech in CS, *SRM University, Chennai.* **2012 - 2016**

Activities: ABU Asia-Pacific Robot Contest, Knowledge Based Search Engine

Venture: Simpl, a fintech startup.

Publication

Multi-K: Kernel multiplexing framework. **2020**

A framework for multiplexing multiple specialized kernels for attack surface reduction.

Supported by the Office of Naval Research (ONR)

Balancing Image Privacy and Usability with Thumbnail-Preserving Encryption. **2019**

Accepted at **NDSS 2019**. photoencryption.org

Work

Intern - MIT Media Lab, Human Dynamics Group. **2017**

Mentor: Dazza Greenwood

Prototyped applications for self-sovereign identity with blockchain as a trust anchor.

Tools: Node, Ethereum, web3.js, TravisCI

Software Developer, Simpl. **2015 - 2017**

Built the first MVP and onboarded 5k users to raise a seed capital of 2M\$.

Scaled the service using an event based pub-sub microservice architecture.

Built the data engineering pipeline, for Business Intelligence queries.

Tools: Ruby on Rails, Python, Redis, Kafka, RabbitMQ, Spark, Cassandra.

Activities

CTF Team, OSUSEC.

Shadow Program Committee, IEEE Security and Privacy. **2020**

External Reviewer, ACM Conference on Computer and Communications Security. **2019**

External Reviewer, IEEE Real-Time and Embedded Technology and Applications Symposium. **2019**

External Reviewer, IEEE International Conference on Dependable Systems and Network. **2019**

Teaching Assistant, CS290 Web Technologies and Web Security. **2018**