Roy Shadmon

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» *Education*

University of California, Santa Cruz
Doctor of Philosophy (PhD) Candidate Computer Science | Sept. 2019 – Pres | Adviser: Prof. Owen Arden
Master of Science (M.S.) Computer Science | Jan. 2018 – Jun. 2019 | GPA 3.84 | Adviser: Prof. Owen Arden
Bachelor of Science (B.S.) Computer Science | Aug. 2014 – Dec. 2017 | GPA 3.44

» *Work Experience*

Looker (acquired by Google), Santa Cruz, California
Security Analyst, September 2019 – Present
Security Analyst Intern, June 2019 – August 2019
- Developing a system that identifies malware and hacks in a container running in a Kubernetes cluster.

Juniper Networks, Sunnyvale, California
Software Engineering Intern, June 2018 – September 2018
- Developed a real-time, highly-available network monitoring system with reported alerts sent to phone that is an alternative to Amazon ES and saves $1000+/month per instance.

Jack Baskin School of Engineering at UC Santa Cruz, Santa Cruz, California
Graduate Teaching Assistant – CMPS 115, 116, CMPS 117, January 2018 – June 2019
- Mentored, supported 50 students on 11 company-sponsored projects including with SCRUM & TDD.

Lend Street Financial, Oakland, California
Full Stack Software Engineering Intern, June 2017 – March 2018
- Built to production werebound.com and automated 25% of underwriting process on lenstreet.com.

Storage Systems Research Center, UC Santa Cruz
Research Assistant, July 2016 – January 2018
- Formatted and edited 200+ research papers and designed 100+ graphs.

Dianomic, Menlo Park, California
Software Engineering Intern, June 2015 – September 2015
- Developed scripts to run MySQL queries on multiple database nodes in a cluster.

» *Projects, Research, Patents*

A Method and Apparatus to Identify and Minimize Malicious Behavior of Untrusted Nodes
Provisional patent application & Publication in progress
- A method to detect query integrity by an untrusted node in a decentralized network.

Detection and Eviction of Malicious Peers in State Machine Replication
Publication in progress
- A BFT SMR that detects faulty behavior and supports dynamic cluster reconfiguration.

Off-Chain Application on the Blockchain – Ethereum & Solidity & Node.js & Truffle
Master's Degree Project
- A fully verifiable, nearly fee-less, and provably fair dApp game that uses state channels.

Secure Distributed Hash Table – Java
Implementation
- Guarantees data confidentiality, integrity, and obliviousness using ORAM and SCAR techniques.

Distributed Hash Table – Java
Implementation
- An implementation of the Chord Protocol—a Peer-to-Peer network.

Bitcoin & Ethereum: Two Decentralized P2P Applications
Survey Research Paper
- A paper explaining the Bitcoin and Ethereum blockchains.

» *Skills*

Languages: Python, Java, Node.js, Solidity, SQL, Ruby on Rails, LaTex
Tools: Kubernetes, Blockchain, Smart Contracts, State Channels, Slack Bots, AWS, GCP, Web3, ELK Stack, npm, pip, WireShark, PubNub, REST, pgAdmin