

Devkishen Sisodia

NETWORK SECURITY RESEARCHER · GRADUATE STUDENT

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*"This world is but a canvas to our imagination."
Henry David Thoreau*

Education

University of Oregon

PH.D IN COMPUTER & INFORMATION SCIENCE

- Major GPA: 3.60

Eugene, Oregon

Sep. 2015 — Present

The University of Texas at Arlington

B.S. IN COMPUTER SCIENCE

- Major GPA: 3.55
- Inducted into the UTA Honor's College
- Received UTA President's Charter Scholarship

Arlington, Texas

Aug. 2011 — May 2015

Experience

RESEARCH

Center for Cyber Security and Privacy

UNIVERSITY OF OREGON

- Research Topics: DDoS defense and IoT security
- Advisor: Jun Li

Eugene, Oregon

Sep. 2015 — Present

National Science Foundation & Department of Defense REU

INDIANA UNIVERSITY — PURDUE UNIVERSITY INDIANAPOLIS

- Research Topics: Android malware detection and machine learning
- Advisors: Feng Li and Mohammad Al Hasan
- Received the 2014 REU Best Research Contribution Award

Indianapolis, Indiana

Jun. 2014 — Aug. 2014

Undergraduate Research

THE UNIVERSITY OF TEXAS AT ARLINGTON

- Research Topics: Optimizing the Dynamic Space-Time Warping algorithm and computer vision
- Advisor: Vassilis Athitsos

Arlington, Texas

Jan. 2015 — May 2015

TEACHING

Graduate Teaching Assistant

UNIVERSITY OF OREGON

- Fluency with Information Technology (Python)
- Introduction to Web Programming (HTML, CSS, & JavaScript)
- Computer Science II (Java)
- Computer and Network Security
- Introduction to Computer Networks

Eugene, Oregon

Sep. 2015 — Present

Undergraduate Teaching Assistant

THE UNIVERSITY OF TEXAS AT ARLINGTON

- Introduction to Engineering

Arlington, Texas

Aug. 2013 — May 2014

WORK

Geronimobile Studios LLC

CHIEF ANDROID DEVELOPER & FOUNDING MEMBER

- Helped start the company as a founding member
- Developed Android applications and assisted in iOS development
- Assisted on major financial decisions for the company
- Developed several mobile applications for news, games, and productivity
- Our DFW Scanner app became the #1 Paid News App in the US on the Apple App Store on October 5, 2012

Arlington, Texas

Jun. 2012 — May 2015

Publications

CONFERENCES

In-Network Filtering of Distributed Denial-of-Service Traffic with Near-Optimal Rule Selection

DEVKISHEN SISODIA, JUN LI, LEI JIAO

The 15th ACM ASIA Conference on Computer and Communications Security (ASIACCS 2020)

On Multi-Point, In-Network Filtering of Distributed Denial-of-Service Traffic

MINGWEI ZHANG, LUMIN SHI, DEVKISHEN SISODIA, JUN LI, PETER REIHER

The 16th IFIP/IEEE Symposium on Integrated Network and Service Management (IM 2019)

FR-WARD: Fast Retransmit as a Wary but Ample Response to Distributed Denial-of-Service Attacks from the Internet of Things

SAMUEL MERGENDAHL, DEVKISHEN SISODIA, JUN LI, HASAN CAM

The 27th International Conference on Computer Communications and Networks (ICCCN 2018)

Securing the Smart Home via a Two-Mode Security Framework

DEVKISHEN SISODIA, SAMUEL MERGENDAHL, JUN LI, HASAN CAM

The 14th EAI International Conference on Security and Privacy in Communication Networks (SecureCom 2018)

ACTS: Extracting Android App Topological Signature Through Graphlet Sampling

WEI PENG, TIANCHONG GAO, DEVKISHEN SISODIA, TANAY KUMAR SAHA, FENG LI, MOHAMMAD AL HASAN

The 4th IEEE Conference on Communications and Network Security (CNS 2016)

JOURNALS

Android Malware Detection via Graphlet Sampling

TIANCHONG GAO, WEI PENG, DEVKISHEN SISODIA, TANAY KUMAR SAHA, FENG LI, MOHAMMAD AL HASAN

IEEE Transactions on Mobile Computing (2018)

WORKSHOPS

Bridging Missing Gaps in Evaluating DDoS Research

LUMIN SHI, SAMUEL MERGENDAHL, DEVKISHEN SISODIA, JUN LI

The 13th USENIX Workshop on Cyber Security Experimentation and Test (CSET 2020)

POSTERS

Content-Agnostic Identification of Cryptojacking in Network Traffic

YEBO FENG, DEVKISHEN SISODIA, JUN LI

The 15th ACM ASIA Conference on Computer and Communications Security (ASIACCS 2020)

Playing in the Sandbox: A Step Towards Sound DDoS Research Through High-Fidelity Evaluation

LUMIN SHI, SAMUEL MERGENDAHL, DEVKISHEN SISODIA, JUN LI

The 21st Passive and Active Measurement Conference (PAM 2020)

The Catch-22 Attack

LUMIN SHI, DEVKISHEN SISODIA, MINGWEI ZHANG, JUN LI, ALBERTO DAINOTTI, PETER REIHER

The 35th Annual Computer Security Applications Conference (ACSAC 2019)

Source-End DDoS Defense in IoT Environments

SAMUEL MERGENDAHL, DEVKISHEN SISODIA, JUN LI, HASAN CAM

The 1st Workshop on Internet of Things Security and Privacy (IoT S&P 2017)

REPORTS

On the State of Internet of Things Security: Vulnerabilities, Attacks, and Recent Countermeasures

DEVKISHEN SISODIA

University of Oregon, Technical Report (2020)

All of the publications above have been funded in part by the United States Department of Homeland Security (DHS), Department of Defense (DoD), and National Science Foundation (NSF).

Skills

Programming Python, Java, C, JavaScript, C++, Kotlin, Perl

Development Unix/Linux Tools, Vim, Git, SVN, LaTeX

Networking Vagrant, Mininet, Contiki

Services

Present **Reviewer**, IEEE Transactions on Dependable and Secure Computing (TDSC)

2019 **Reviewer**, IEEE Journal on Selected Areas in Communications (JSAC)

2017 **Poster Chair**, Oregon Cyber Security Day

2014 **Technical Program Chair**, Research Experience for Undergraduates Symposium