# **Paul Pearce**

College of Computing Georgia Institute of Technology 756 West Peachtree, S1023, Atlanta, GA 30308 +1 (909) 223-5984 (phone)

pearce@gatech.edu
http://www.cc.gatech.edu/~pearce

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# I Earned Degrees

Degree	Year	University	Field
Ph.D.	2018		Computer Science
M.S.	2013		Computer Science
B.S.	2009		Electrical Engineering and Computer Science

# **II** Employment History

Title	Organization	Years
Assistant Professor	College of Computing	08/2019–present
	Georgia Institute of Technology	
Visiting Research Scientist	Site Integrity	09/2018-07/2019
	Facebook, Inc.	
<b>Research and Teaching Assistant</b>	CS Department	08/2010-08/2018
	University of California, Berkeley	

# **III** Honors and Awards

1. NSF CAREER Award	February 2023
2. DARPA Riser 2022	October 2022
3. ACM IMC Community Contribution Award	October 2022
4. Fall 2021 Student Recognition of Excellence in Teaching: Class of 1934 CIOS Honor Roll	Fall 2021
5. SIGSAC Doctoral Dissertation Award Runner-Up Awarded by the ACM	Oct 2019
6. Distinguished Practical Paper Awarded by the IEEE Symposium on Security and Privacy	May 2015
7. EECS Distinguished GSI Award Awarded by UC Berkeley CS Department	Apr 2014
8. NSFGRF Honorable Mention (Operating Systems & Middleware) Awarded by the NSF	Apr 2011
9. GAANN Fellowship Awarded by the UC Berkeley CS Department Aug 2	2010 - May 2011
10. Eugene L. Lawler Prize Awarded by the UC Berkeley EECS Department	Jun 2010
11. Fong Family Scholarship Awarded by the UC Berkeley EECS Department	May 2009
12. Eta Kappa Nu Member and Officer Awarded by Eta Kappa NuMay 2	2008 - May 2010
13. AMATYC Student Mathematics League Award Awarded by Chaffey Community College	May 2007
14. Jack White Engineering Physics Award Awarded by Chaffey Community College	May 2006
15. Arthur E. & Gladys P. Flum Award Awarded by Chaffey Community College	May 2006
16. 1st Place, ACM Regional Programming Comp., Community College Div. Awarded by the AC	CM May 2005

# **IV** Research, Scholarship, and Creative Activities

### A Refereed Publications and Submitted Articles

### A.1 Conference Publications with Proceedings (Refereed)

- [1] \* M. Erdemir, F. Li, P. Pearce, "Understanding IPv6 Aliases and Detection Methods", *Passive and Active Measurement (PAM)*, Mar 2025
- [2] \* A. Bhaskar. P. Pearce, "Understanding Routing-Induced Censorship Changes Globally", ACM Conference on Computer and Communications Security (CCS), Oct 2024
- [3] \* **G. Williams**, P. Pearce, "Seeds of Scanning: Exploring the Effects of Datasets, Methods, and Metrics on IPv6 Internet Scanning", *ACM Internet Measurement Conference*, Oct 2024
- [4] \* K. Stevens, \* M. Erdemir, H. Zhang, T. Kim, P. Pearce, "BluePrint: Automatic Malware Signature Generation for Internet Scanning", *International Symposium on Research in Attacks, Intrusions and Defenses (RAID)*, Sep 2024
- [5] \* G. Williams, \* M. Erdemir, \* A. Hsu, \* S. Bhat, \* A. Bhaskar, F. Li, P. Pearce, "6SENSE: Internet-Wide IPv6 Scanning and its Security Applications", *USENIX Security Symposium (USENIX)*, Aug 2024
- [6] \* Q. Xie, \* M. V. K. Murali, P. Pearce, F. Li "Arcanum: Detecting and Evaluating the Privacy Risks of Browser Extensions on Web Pages and Web Content", *USENIX Security Symposium (USENIX)*, Aug 2024
- [7] \* A. Hsu, F. Li, P. Pearce, O. Gasser, "A First Look At NAT64 Deployment In-The-Wild", *Passive and Active Measurement (PAM)*, Mar 2024
- [8] \* A. Hsu, F. Li, P. Pearce, "Fiat Lux: Illuminating IPv6 Apportionment With Different Datasets", ACM SIGMET-RICS, Jun 2023
- [9] B. Tanveer, R. Singh, P. Pearce, R. Nithyanand, "Glowing in the Dark:Uncovering IPv6 Address Discovery and Scanning Strategies in the Wild", USENIX Security Symposium (USENIX), Aug 2023
- [10] \* C. Oh, D. McCoy, C. Kanich, P. Pearce, "Cart-ology: Intercepting Targeted Advertising via Ad Network Identity Entanglement", *ACM Conference on Computer and Communications Security (CCS)*, Nov 2022
- [11] L. Izhikevich, G. Akiwate, B. Berger, S. Drakontaidis, A. Ascheman, P. Pearce, D. Adrian, Z. Durumeric, "ZDNS: A Fast DNS Toolkit for Internet Measurement", ACM Internet Measurement Conference, Oct 2022. Community Contribution Award
- [12] \* A. Bhaskar. P. Pearce, "Many Roads Lead To Rome: How Packet Headers Influence DNS Censorship Measurement", 31st USENIX Security Symposium (USENIX), Aug 2022
- [13] \* T. Xu, G. Goossen, H. K. Cevahir, S. Khodeir, Y. Jin, F. Li, S. Shan, S. Patel, D. Freeman, P. Pearce, "Deep Entity Classification: Abusive Account Detection for Online Social Networks", 30th USENIX Security Symposium (USENIX), Aug 2021
- [14] \* K. Cohn-Gordon, G. Damaskinos, D. Neto, J. Cordova, B. Reitz, B. Strahs, D. Obenshain, P. Pearce, I. Papagiannis, "DELF: Safeguarding deletion correctness in Online Social Networks", 29th USENIX Security Symposium (USENIX), Aug 2020
- [15] \* F. Kozlov, I. Yuen, J. Kowalczyk, D. Bernhardt, D. Freeman, P. Pearce, I. Ivanov, "Evaluating Changes to Fake Account Verification Systems", 23rd International Symposium on Research in Attacks, Intrusions and Defenses (RAID), Oct 2020
- [16] \* V. Guo Li, M. Dunn, D. McCoy, G. M. Voelker, S. Savage, P. Pearce, K. Levchenko, "Reading the Tea leaves: A Comparative Analysis of Threat Intelligence", *28th USENIX Security Symposium (USENIX)*, Aug 2019

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- [17] M. Rezaeirad, B. Farinholt, H. Dharmdasani, P. Pearce, K. Levchenko, D. McCoy, "Schrodinger's RAT: Profiling the Stakeholders in the Remote Access Trojan Ecosystem", 27th USENIX Security Symposium (USENIX), Aug 2018
- [18] P. Pearce, B. Jones, F. Li, R. Ensafi, N. Weaver, N. Feamster, V. Paxson, "Global Measurement of DNS Manipulation", 26th USENIX Security Symposium (USENIX), Aug 2017
- [19] R. Singh, R. Nithyanand, S. Afroz, P. Pearce, M. C. Tschantz, P. Gill, V. Paxson, "Characterizing the Nature and Dynamics of Tor Exit Blocking", 26th USENIX Security Symposium (USENIX), Aug 2017
- [20] P. Pearce, R. Ensafi, F. Li, N. Feamster, V. Paxson, "Augur: Internet-Wide Detection of Connectivity Disruptions", 38th IEEE Symposium on Security and Privacy (Oakland), May 2017
- [21] B. Farinholt, M. Rezaeirad, P. Pearce, H. Dharmdasani, H. Yiny, S. Le Blond, D. McCoy, K. Levchenko, "To Catch a Ratter: Monitoring the Behavior of Amateur DarkComet RAT Operators in the Wild", 38th IEEE Symposium on Security and Privacy (Oakland), May 2017
- [22] K. Thomas, E. Bursztein, C. Grier, G. Ho, N. Jagpal, A. Kapravelos, D. McCoy, A. Nappa, V. Paxson, P. Pearce, N. Provos, M. A. Rajab, "Ad Injection at Scale: Assessing Deceptive Advertisement Modifications", 36th IEEE Symposium on Security and Privacy (Oakland), May 2015. Distinguished Practical Paper
- [23] P. Pearce, V. Dave, C. Grier, K. Levchenko, S. Guha, D. McCoy, V. Paxson, S. Savage, G. M. Voelker, "Characterizing Large-Scale Click Fraud in ZeroAccess", 21st ACM Conference on Computer and Communications Security (CCS), Nov 2014
- [24] P. Pearce, C. Grier, V. Paxson, V. Dave, D. McCoy, G. M. Voelker, and S. Savage. "The ZeroAccess Auto-Clicking and Search-Hijacking Click Fraud Modules", *Technical report, EECS Department, University of California, Berkeley*, Dec 2013
- [25] P. Pearce, G. Nunez, A. P. Felt, and D. Wagner, "AdDroid: Privilege Separation for Applications and Advertisers in Android", 7th ACM Symposium on Information, Computer and Communications Security (ASIACCS), May 2012
- [26] B. Miller, P. Pearce and C. Grier, C. Kreibich, V. Paxson, "What's Clicking What? Techniques and Innovations of Today's Clickbots", 8th Conference on Detection of Intrusions and Malware & Vulnerability Assessment (DIMVA), Jul 2011
- [27] J. A. Colmenares, S. Bird, H. Cook, P. Pearce, D. Zhu, J. Shalf, K. Asanovic, and J. Kubiatowicz. "Resource Management in the Tessellation Manycore OS", USENIX Workshop on Hot Topics in Parallelism (HotPar), Jun 2010

#### A.2 Published and Accepted Journal Publications

[28] P. Pearce, R. Ensafi, F. Li, N. Feamster, V. Paxson, "Towards Continual Measurement of Global Network-Level Censorship", *IEEE Security & Privacy, Special Issue*, Feb 2018

### A.3 Other Refereed Material

- [29] \*Z. Yazdani, P. Pearce, A. Dainotti, C. Testart, "Poster: Investigating Network Security Post-Outage: Open Ports Vulnerabilities", *Internet Measurement Conference (IMC)*, Oct 2024. Best Poster Award
- [30] P. Pearce, B. Jones, F. Li, R. Ensafi, N. Weaver, N. Feamster, V. Paxson, "Global Measurement of DNS Manipulation", *USENIX* ;login: (Magazine Article), Winter 2017
- [31] K. Klues, B. Rhoden, D. Zhu, P. Pearce, E. Brewer, J. Kubiatowicz. "Abstractions for Scalable Operating Systems on Manycore Architectures". Work-In-Progress Poster, 22nd ACM Symposium on Operating Systems Principles (SOSP), Oct 2009

# **B** Other Publications and Creative Products

### **B.1** Software Release

- ZMap: Fast Internet-Wide Scanner. https://github.com/zmap/zmap Co-Developer and Co-Maintainer More than 3,800 stars on Github and extensively used in academia and industry.
- ZDNS: Fast CLI Utility for Large-Scale DNS Lookups Co-Developer and Co-Maintainer More than 450 stars on Github.

https://github.com/zmap/zdns

2015-Present

2016-Present

# **C** Presentations

### C.1 Conference Presentations (Submitted and Accepted)

- 1. Global Measurement of DNS Manipulation, 26th USENIX Security Symposium (USENIX), Aug 2017
- 2. Characterizing Large-Scale Click Fraud in ZeroAccess, 21st ACM Conference on Computer and Communications Security (CCS), Nov 2014
- 3. AdDroid: Privilege Separation for Applications and Advertisers in Android, 7th Symposium on Information, Computer and Communications Security (ASIACCS), May 2012
- 4. What's Clicking What? Techniques and Innovations of Today's Clickbots, 8th Conf. on Detection of Intrusions and Malware & Vuln. Assessment (DIMVA), Jul 2012

### C.2 Invited Seminars

- 1. Prevalence: Unbiased Service Abuse Measurement, Microsoft Digital Crime Conference (DCC), Mar 2019
- 2. Methods and Systems for Understanding Large-Scale Internet Threats, Facebook, Spring 2018
- 3. Methods and Systems for Understanding Large-Scale Internet Threats, University of Virginia (UVA), Apr 2018
- 4. Methods and Systems for Understanding Large-Scale Internet Threats, University of Massachusetts, Amherst, Apr 2018
- 5. Methods and Systems for Understanding Large-Scale Internet Threats, Northeastern University (NEU), Mar 2018
- 6. Methods and Systems for Understanding Large-Scale Internet Threats, University of North Carolina, Chapel Hill (UNC), Mar 2018
- 7. Methods and Systems for Understanding Large-Scale Internet Threats, University of Maryland (UMD), Mar 2018
- 8. Methods and Systems for Understanding Large-Scale Internet Threats, University of California, Santa Barbara (UCSB), Mar 2018
- 9. Methods and Systems for Understanding Large-Scale Internet Threats, University of Chicago (UChicago), Mar 2018
- 10. Methods and Systems for Understanding Large-Scale Internet Threats, New York University, Tandon School of Engineering (NYU), Mar 2018
- 11. Methods and Systems for Understanding Large-Scale Internet Threats, Georgia Institute of Technology (Georgia Tech), Feb 2018

- 12. Methods and Systems for Understanding Large-Scale Internet Threats, University of Wisconsin, Madison (UWM), Feb 2018
- 13. Methods and Systems for Understanding Large-Scale Internet Threats, Carnegie Mellon University (CMU), Feb 2018
- 14. Global Measurement of DNS Manipulation, University of Illinois at Urbana-Champaign ITI Seminar Oct 2017
- 15. Global Measurement of DNS Manipulation, Cloudflare Seminar, Sep 2017
- 16. Global Measurement of DNS Manipulation, University of Michigan Security Seminar, Jul 2017
- 17. Global Measurement of DNS Manipulation, University of Illinois Security Seminar, Jul 2017
- 18. Understanding Threat Intelligence, Berkeley EECS Annual Research Symposium (BEARS), Feb 2016
- 19. Characterizing Large-Scale Click Fraud in ZeroAccess, Messaging, Malware and Mobile Anti-Abuse Working Group (M3AAWG), Oct 2015
- 20. Monetizing ZeroAccess: Inside the ZA-hosted Click-fraud Malware, Google Abuse Summit, May 2014
- 21. Monetizing ZeroAccess: Inside the ZA-hosted Click-fraud Malware, Microsoft Digital Crime Conference (DCC), Mar 2014

# **D** Grants and Contracts

### D.1 As Principal Investigator

#### Conference: NSF NeTS Early-Career Investigators Workshop 2024 NSF Total Dollar Amount: \$27,421, Total CT Dollar Amount: \$27,421

Total Dollar Amount: \$87,421, Total GT Dollar Amount: \$87,421 Role: PI Collaborators Outside GT: Justine Sherry and Chris Briton Award Period: 2024-2025

## IMR: MM-1C: Methods and Metrics for IPv6 Internet Scanning

NSF Total Dollar Amount: \$600,000, Total GT Dollar Amount: \$600,000 Role: PI Collaborators at GT: Frank Li (co-PI) Award Period: 10/2023 - 9/2026 Candidate's Share of GT portion: 50% (\$300,000)

# Collaborative Research: SaTC: CORE: Medium: Understanding and Combatting Impersonation Attacks and Data Leakage in Online Advertising

NSF Total Dollar Amount: \$1,200,000, Total GT Dollar Amount: \$400,000 Role: PI Collaborators Outside GT: Chris Kanich, UIC (co-PI), Damon McCoy, NYU (co-PI) Award Period: 7/2023 - 6/2026 Candidate's Share of GT portion: 100% (\$400K)

## **CAREER: Next-Generation Active Internet Measurement** NSF

Total Dollar Amount: \$663,744, Total GT Dollar Amount: \$663,744

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Role: PI Award Period: 7/2023 - 6/2028 Candidate's Share of GT portion: 100%

### Scanning-Adaptive Network Deception

Office of Naval Research Total Dollar Amount: \$172,945, Total GT Dollar Amount: \$172,945 Role: PI Award Period: 12/2022 - 5/2024 Candidate's Share of GT portion: 100%

### AI Driven IPv6 Internet Scanning and Binary Analysis Driven Internet Scanning / Research and develop methods for developing IPv6, and malware scanning systems

Research contract with Cisco Inc. Total Dollar Amount: \$175,000 Role: PI Collaborators: None Period of Contract: 5/2021 - 5/2023 Candidate's Share: 100% (\$175,000)

# Gift in support of research including: Understanding and Combating Surreptitious Website Scraping by Browser Extensions

Gift from Facebook, Inc. Total Dollar Amount: \$400,000 Role: PI Collaborators: Frank Li Period of Contract: N/A Candidate's Share: 50% (\$200,000)

### D.2 As Co-Principal Investigator

### Interactive Editing Techniques for Subsetting and Dialecting Network Protocols

Office of Naval Research Total Dollar Amount: \$2,976,781 Role: co-PI Collaborators at GT: Taesoo Kim (PI), Wenke Lee (co-PI), Brendan Saltaformaggio (co-PI), Santosh Pande (co-PI), Alessandro Orso (co-PI) Award Period: 9/2018 - 11/2022 Candidate's Share: 4% (\$120K)

### **TORCH: Topic-Oriented Reasoning over CensorsHip actions / Build a topic-based censorship detection system** DARPA Total Dollar Amount: \$1,000,000, Total GT Dollar Amount: \$100,000 Role: co-PI Collaborators at GT: Frank Li (co-PI) Collaborators at GTRI: Bryan Massey (PI), Thomas Shields (PI) Period of Contract: 9/2021 - 2/2022 Candidate's Share of GT portion: 50% (\$50K)

### D.3 As Senior Personnel or Contributor

### **D.4 Pending Proposals**

# **E** Other Scholarly and Creative Accomplishments

# F Societal and Policy Impacts

• Worked with law enforcement to identify and remediate state-sponsored APT activity.	2016-2017		
• Worked with industry to identify and remeidate large-scale advertising abuse.	2014		
• Worked with law enforcement to identify and redmediate malware and criminal activity.	2013-2014		
G Other Professional Activities			
G.1 Consulting			
• Collaborated with Facebook Site Integrity on abusive account detection.	9/2019-11/2020		
G.2 Other			
Distinguished Research Scholar, International Computer Science Institute.	9/2019-8/2020		

# **V** Education

## A Courses Taught

Semester/Year	Course	# Students	Comments
Fall 2023	CS 8803-EMS - Advanced Network Security	14	
Spring 2023	CS 4235 - Introduction to Information Security	167	Co-Instructor
Spring 2023	CS 6035 - Introduction to Information Security	118	Co-Instructor
Fall 2022	CS 8803-EMS - Advanced Network Security	21	
Spring 2022	CS 4235 - Introduction to Information Security	146	Co-Instructor
Spring 2022	CS 6035 - Introduction to Information Security	88	Co-Instructor
Fall 2021	CS 8803-EMS - Advanced Network Security	12	
Spring 2021	CS 4235 - Introduction to Information Security	120	COVID-19
Spring 2021	CS 6035 - Introduction to Information Security	54	COVID-19
Spring 2020	CS 4235 - Introduction to Information Security	105	COVID-19
Spring 2020	CS 6035A - Introduction to Information Security	56	COVID-19
Spring 2020	CS 6035B - Introduction to Information Security	52	COVID-19
Fall 2019	CS 8803-EMS - Advanced Network Security	7	

## **B** Individual Student Guidance

### **B.1** Ph.D. Students Supervised

- 1. **Hugo Hue**: Fall 2022 Present *Co-advised with Frank Li*
- 2. Amanda Hsu: Fall 2021 Present Co-advised with Frank Li Qualifying Exam Passed Summer 2023

- 3. **Mert Erdemir**: Fall 2021 Present *Co-advised with Frank Li Qualifying Exam Passed Summer 2023*
- 4. Grant Williams: Fall 2020 Present Qualifying Exam Passed Summer 2023
- 5. Abhishek Bhaskar: Fall 2019 Present Qualifying Exam Passed Fall 2021
- 6. Shaarif Sajid: Fall 2019 Summer 2020

### B.2 M.S. Projects and Special Problems Students Supervised

- 7. **ChangSeok Oh**: Summer 2021 Summer 2022 Graduated Fall 2022, now Senior Software Engineer at TikTok
- 8. Apurv Singh Gautam: Spring 2020 Spring 2021 Graduated Spring 2021, now Security Researcher at Cyble

### **B.3** Undergraduate Students Supervised

9. Wooseok (Luke) Kim: Spring 2021 Graduated Fall 2021

### **B.4** Thesis or Dissertation Committees

- Ph.D. Thesis Committee Georgia Tech
  - 1. **Roomi Suood** College of Computing, Advisor: Frank Li, 2024 Thesis: *Empirical Measurements of the Security and Privacy of Website Password Authentication*
  - 2. Mathew Landen College of Computing, Advisor: Wenke Lee, 2024 Thesis: Achieving Trustworthy Industrial Control Systems Using Data-Driven Models Informed by Physical Domain Knowledge
  - 3. Dhruv Kuchhal College of Computing, Advisor: Frank Li, 2023 Thesis: *Real or Not? Empirically Evaluating Web Security and Privacy Concerns*
  - 4. **Joe Allen** College of Computing, Advisor: Wenke Lee, 2023 Thesis: *Forensics and Auditing for Web-Based Attacks in the Modern Web*
  - 5. Jinho Jung College of Computing, Advisor: Taesoo Kim, 2021 Thesis: *Practical systems for strengthening and weakening binary analysis frameworks*
  - Shan Chen College of Computing, Advisor: Alexandra Boldyreva, 2019 Thesis: Towards secure communication and authentication: Provable security analysis and new constructions
- Ph.D. Thesis Committee External
  - 7. Nguyen Phong Hoang Stony Brook University, Advisor: Michalis Polychronakis, 2021 Thesis: Tackling Online Surveillance and Censorship With Empirical Network Measurement
- M.S. Thesis Committee Georgia Tech
  - 8. **Gabriela Lopez** College of Engineering, Advisor: Brendan Saltaformaggio, 2022 Thesis: *The Automation of Finding Security Bugs using Fuzzing and the Profiling of Performance Counters*

- 9. Fabian Kilger College of Engineering, Advisor: Brendan Saltaformaggio, 2020 Thesis: *Extracting ICS Models from Malware via Concolic Analysis*
- B.S. Thesis Committee Georgia Tech
  - 10. **John Choi** College of Computing, Advisor: Milton Mueller, 2021 Thesis: *Fingerprinting DNS over HTTPS (DoH)*

## C Educational Innovations and Other Contributions

### C.1 Curriculum Development

**CS 8803 EMS** (Advanced Network Security and Measurement): Created, developed, and taught a PhD level course focused on the role of empiricism in advanced network security research. The goal of the course is to prepare fresh PhD students for network security research, with an emphasis in paper reading, writing, and research output. The course also focuses on the role of ethics and law in security research.

# **VI** Service

## **A** Professional Contributions

## A.1 Program Committee Service

1.	USENIX Security Program Committee: 34th USENIX Security Symposium	2025
2.	ACM IMC Program Committee: ACM Internet Measurement Conference	2025
3.	IEEE Euro S&P Program Committee: IEEE European Symposium on Security and Privacy	2026
4.	USENIX Security Program Committee: 33rd USENIX Security Symposium	2024
5.	IEEE S&P Program Committee: IEEE Symposium on Security and Privacy	2024
6.	ACM IMC Program Committee: ACM Internet Measurement Conference	2023
7.	PETS Program Committee: 23rd Privacy Enhancing Technologies Symposium	2023
8.	IEEE S&P Program Committee: IEEE Symposium on Security and Privacy	2022
9.	USENIX Security Program Committee: 31th USENIX Security Symposium	2022
10.	CCS Program Committee: 28th Conf. on Computer and Comm. Security	2021
11.	USENIX Security Program Committee: 30th USENIX Security Symposium	2021
12.	IEEE S&P Program Committee: 42nd IEEE Symposium on Security and Privacy	2021
13.	CCS Program Committee: 27th Conf. on Computer and Comm. Security	2020
14.	IEEE S&P Program Committee: 41st IEEE Symposium on Security and Privacy	2020
15.	USENIX Security Program Committee: 29th USENIX Security Symposium	2020
16.	CCS Program Committee: 26th Conf. on Computer and Comm. Security	2019
17.	RAID Program Committee: 22nd Sym. on Research in Attacks, Intrusions and Defenses	2019
18.	WOOT Program Committee: 13th USENIX Workshop on Offensive Technologies	2019

19.	PETS Program Committee: 20th Privacy Enhancing Technologies Symposium	2019-2020
20.	PETS Program Committee: 19th Privacy Enhancing Technologies Symposium	2018-2019
21.	PETS Program Committee: 18th Privacy Enhancing Technologies Symposium	2017-2018
22.	USENIX Security PC Scribe: 25th USENIX Security Symposium	2016
A.2	Other Professional Service	
23.	IEEE S&P Test of Time Awards Committee: IEEE Symposium on Security and Privac	zy 2024
24.	NSF Panel Member: Reviewed NSF Proposals	2023
25.	CI Fellows Reviewer: CRA Computing Innovation Fellows Application reviewer	2021
26.	Student Leader: Computer Science GSI Conference Workshop Leader, UC Berkeley	Aug 2015
27.	<b>Graduate Admissions:</b> UC Berkeley <i>Reviewed applications for the security research area</i>	2014-2015
28.	<b>Graduate Admissions:</b> UC Berkeley <i>Reviewed applications for diversity</i>	2013-2014
29.	Student Leader: CS Graduate Student Association President, UC Berkeley	2013-2014
30.	Student Leader: CS Graduate Student Association Officer, UC Berkeley	2010-2015
31.	Student Leader: EECS Department Undergraduate Study Committee, UC Berkeley	2009-2011
32.	Student Leader: Eta Kappa Nu Member and Officer, UC Berkeley	2008-2010
33.	Mentoring: EECS Peers, UC Berkeley	Fall 2013 - Fall 2015
		Fall 2013 - Fall 2015
B	Mentoring: EECS Peers, UC Berkeley Professional Membership ACM Member	Fall 2013 - Fall 2015 2019-Present
<b>B</b> 1.	Professional Membership	
<b>B</b> 1. 2.	Professional Membership ACM Member	2019-Present
B 1. 2. C	Professional Membership ACM Member USENIX Member	2019-Present
B 1. 2. C	Professional Membership ACM Member USENIX Member Public and Community Service	2019-Present
B 1. 2. C D D.1	Professional Membership ACM Member USENIX Member Public and Community Service Institute Contributions	2019-Present
B 1. 2. C D D.1 1.	Professional Membership ACM Member USENIX Member Public and Community Service Institute Contributions On-campus Georgia Tech Committees	2019-Present 2020-Present
B 1. 2. C D D.1 1. 2.	Professional Membership ACM Member USENIX Member Public and Community Service Institute Contributions On-campus Georgia Tech Committees School of Cybersecurity and Privacy School Advisory Committee (SAC)	2019-Present 2020-Present 2022-Present
B 1. 2. C D D.1 1. 2. 3.	Professional Membership ACM Member USENIX Member Public and Community Service Institute Contributions On-campus Georgia Tech Committees School of Cybersecurity and Privacy School Advisory Committee (SAC) School of Cybersecurity and Privacy TSO Advisor	2019-Present 2020-Present 2022-Present 2020-Present
B 1. 2. C D D.1 1. 2. 3. 4.	Professional Membership ACM Member USENIX Member Public and Community Service Institute Contributions On-campus Georgia Tech Committees School of Cybersecurity and Privacy School Advisory Committee (SAC) School of Cybersecurity and Privacy TSO Advisor School of Cybersecurity and Privacy Grad Committee Member	2019-Present 2020-Present 2022-Present 2020-Present 2022-2023
B 1. 2. C D D.1 1. 2. 3. 4. 5.	Professional Membership ACM Member USENIX Member Public and Community Service Institute Contributions On-campus Georgia Tech Committees School of Cybersecurity and Privacy School Advisory Committee (SAC) School of Cybersecurity and Privacy TSO Advisor School of Cybersecurity and Privacy Grad Committee Member School of Cybersecurity and Privacy Faculty Search Committee Member	2019-Present 2020-Present 2022-Present 2020-Present 2022-2023 2021-2022
B 1. 2. C D D.1 1. 2. 3. 4. 5. 6.	Professional Membership ACM Member USENIX Member Public and Community Service Institute Contributions On-campus Georgia Tech Committees School of Cybersecurity and Privacy School Advisory Committee (SAC) School of Cybersecurity and Privacy TSO Advisor School of Cybersecurity and Privacy Grad Committee Member School of Cybersecurity and Privacy Faculty Search Committee Member School of Cybersecurity and Privacy Chair Search Committee Member	2019-Present 2020-Present 2022-Present 2020-Present 2022-2023 2021-2022 2021-2022

8.	School of Cybersecurity and Privacy Research Infrastructure Committee	2020-2021
9.	School of Computer Science PhD Recruitment Visit Coordinator	2020-2021
10.	School of Computer Science PhD Recruitment Visit Coordinator	2019-2020
D.2	Member of Ph.D. Qualifying Committees	
1.	Kevin Stevens College of Computing, Advisor: Taesoo Kim	2024
2.	Hrivik Taneja College of Computing, Advisor: Moinuddin Qureshi	2023
3.	Qinge Xie College of Computing, Advisor: Frank Li	2023
4.	Zhiyi Chen College of Computing, Advisor: Alberto Dainotti	2023
5.	Jason Kim College of Computing, Advisor: Daniel Genkin	2023
6.	Thanos Avgetidis College of Computing, Advisor: Manos Antonakakis	2023
7.	Suood Alroomi College of Computing, Advisor: Frank Li	2023
8.	Ding Zhang College of Computing, Advisor: Wenke Lee	2023
9.	Ammar Askar College of Computing, Advisor: Taesoo Kim	2022
10.	Changseok Oh College of Computing, Advisor: Wenke Lee	2021
11.	Mathew Landen College of Computing, Advisor: Wenke Lee	2021
12.	Zhengxian He College of Computing, Advisor: Mustaque Ahamad	2020
13.	Kyuhong Park College of Computing, Advisor: Mustaque Ahamad	2020
14.	Miuyin Yong Wong College of Computing, Advisor: Mustaque Ahamad	2020
15.	Joey Allen College of Computing, Advisor: Wenke Lee	2019