

# Hao Chen

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## RESEARCH INTERESTS

AI-driven security and software engineering. Security of machine learning.

## EDUCATION

**University of California, Berkeley** 1998-08 – 2004-06  
*PhD in Computer Science* Berkeley, CA, USA

## APPOINTMENTS

<b>Department of Computer Science, University of California</b> <i>Professor</i>	2016-07 – present <i>Davis, CA, USA</i>
<b>Department of Computer Science, University of California</b> <i>Associate Professor</i>	2010-07 – 2016-06 <i>Davis, CA, USA</i>
<b>Department of Computer Science, University of California</b> <i>Assistant Professor</i>	2004-07 – 2010-06 <i>Davis, CA, USA</i>

## HONORS AND AWARDS

- IEEE Fellow
- ACM Distinguished Member
- Outstanding Engineering Faculty Award, UC Davis, 2010
- CAREER Award, National Science Foundation, 2007

## STUDENTS

- *Doctoral*: Liang Cai, Jiyu Chen, Jonathan Crussell, Benjamin Davis, Clint Gibler, Yifeng He, Francis Hsu, Gabriel Maganis, Yuan Niu, Yuyang Rong, Ryan Stevens, Matthew Van Gundy
- *Master*: Haitian Chen, Peng Chen, Jeremy Erickson, Eric Gustafson, Kristen Kennedy, Jianzhong Liu, Denys Ma, Dongyu Meng, Radmillo Racic, Jonathan Vronsky, Yuanyi Wu

## SERVICES

### **Chair or co-chair of technical program committee**

- IEEE Conference on Communications and Network Security (CNS) 2023
- IEEE Mobile Security Technologies (MoST) 2012, 2013

## Editorial board

- Associate editor of ACM Transactions on Security and Privacy (TOPS), 2020–present

### **Member of program committee**

- ACM Conference on Foundations of Data Science (FODS) 2020
- ACM Conference on Computer and Communications Security (CCS) 2017–2019, 2022, 2025
- IEEE Conference on Communications and Network Security (CNS) 2013–2017
- ACM Asia Conference on Computer and Communications Security (ASIACCS) 2006, 2016–2017
- IEEE Mobile Security Technologies (MoST) 2012–2017
- IEEE International Conference on Computer Communications (INFOCOM) 2016
- IEEE Symposium on Security and Privacy (S&P) 2009, 2015
- International Conference on Mobile Systems, Applications, and Services (MobiSys) 2015
- International Conference on Cryptology and Network Security (CANS) 2015
- Annual Computer Security Applications Conference (ACSAC) 2012–2013
- World Wide Web Conference (WWW) 2012
- ACM Conference on Wireless Network Security (WiSec) 2011, 2016
- Network and Distributed System Security Symposium (NDSS) 2006, 2008–2011
- International Conference on Security and Privacy in Communication Networks (SecureComm) 2007–2012
- IEEE Web 2.0 Security and Privacy (W2SP) 2009–2011, 2013
- International Conference on Distributed Computing Systems (ICDCS) 2008
- Usenix Security Symposium 2007

## FUNDING

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- UC Noyce Initiative, PI 2023-10 – 2025-09  
AI for Cybersecurity \$1 000 000
- NSF 1956364, PI 2020-07 – 2023-06  
SaTC: CORE: Small: Collaborative: Understanding and Detecting Memory Bugs in Rust \$199 997
- ARL CRA, PI 2018-09 – 2020-12  
MACRO: Models for Enabling Continuous Reconfigurability of Secure Missions \$226 714
- NSF 1801751, PI 2018-08 – 2023-07  
SaTC: CORE: Medium: Collaborative: Towards Robust Machine Learning Systems \$400 000
- Intel, PI 2013-10 – 2017-09  
Science and Technology Center for Secure Computing (ISTC-SC) \$150 000
- UC Davis, co-PI 2012-09 – 2015-08  
Research Investments in the Sciences and Engineering (RISE) \$860 000
- NSF 1018964, PI 2010-08 – 2014-07  
Designing New Authentication Mechanisms using Hardware Capabilities in Advanced \$500 000  
Mobile Devices

• NSF 0831547, co-PI Practical Privacy Preserving Technologies	2008-11 – 2012-10 \$300 000
• University of California MICRO, PI Leveraging Cellular Networks for Web Authentication	2008-08 – 2009-12 \$11 250
• NSF 0644450, PI CAREER: Securing Broadband Cellular Data Networks	2007-07 – 2013-06 \$400 000
• AFOSR, PI Helix: A Self-Regenerative Architecture for the Incorruptible Enterprise	2007-05 – 2012-04 \$1 646 000
• I3P, PI Institute for Information Infrastructure Protection Fellowship	2005-09 – 2007-08 \$150 000
• NSF 0524826, PI CT-ISG: Reasoning about Composable Intrusion Detection Systems	2005-10 – 2006-09 \$179 110
• NSF 0520320, co-PI NeTS-NBD: Automatic Validation, Optimization, and Adaptation of Distributed Fire-walls for Network Performance and Security	2005-09 – 2008-08 \$400 000
• Sprint, PI Gift	2007, 2008 \$60 000
• Microsoft, PI Gift	2007 \$5000
• Intel, co-PI Gift	2005 \$150 000

## PUBLICATIONS

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### In journals

1. Li, Q., Guo, Y., Yang, X., Zuo, W. & **Chen, H.** Improving Transferability of Adversarial Examples via Bayesian Attacks. *IEEE Transactions on Circuits and Systems for Video Technology* (2025).
2. Rong, Y., Zhang, C., Liu, J. & **Chen, H.** Valkyrie: Improving Fuzzing Performance Through Deterministic Techniques. *Journal of Systems and Software* **209** (Mar. 2024).
3. Du, X., Chen, A., He, B., **Chen, H.**, Zhang, F. & Chen, Y. AflIot: Fuzzing on Linux-based IoT Device with Binary-Level Instrumentation. *Computers & Security* **122**. ISSN: 0167-4048 (2022).
4. Guo, Y., Li, Q., Zuo, W. & **Chen, H.** An Intermediate-level Attack Framework on The Basis of Linear Regression. *IEEE Transactions on Pattern Analysis and Machine Intelligence* **45**, 2726–2735 (2022).
5. Liu, Y., Xu, Z., Fan, M., Hao, Y., Chen, K., **Chen, H.**, Cai, Y., Yang, Z. & Liu, T. ConcSpectre: Be Aware of Forthcoming Malware Hidden in Concurrent Programs. *IEEE Transactions on Reliability* **71**, 1174–1188 (2022).
6. Chen, J., Guo, Y., Zheng, Q. & **Chen, H.** Protect Privacy of Deep Classification Networks by Exploiting Their Generative Power. *Machine Learning* **110**, 651–674 (2021).
7. Han, W., Cao, C., **Chen, H.**, Li, D., Fang, Z., Xu, W. & Wang, X. senDroid: Auditing Sensor Access in Android System-Wide. *IEEE Transactions on Dependable and Secure Computing* **17**, 407–421 (2017).

8. Zhang, Y., Yang, M., Gu, G. & **Chen, H.** Rethinking Permission Enforcement Mechanism on Mobile Systems. *IEEE Transactions on Information Forensics & Security* **11**, 2227–2240 (2016).
9. Crussell, J., Gibler, C. & **Chen, H.** AnDarwin: Scalable Detection of Android Application Clones Based on Semantics. *IEEE Transactions on Mobile Computing* **14**, 2007–2019 (2015).
10. Van Gundy, M. & **Chen, H.** Noncespaces: Using Randomization to Defeat Cross-Site Scripting Attacks. *Computers & Security* **31**, 612–628 (2012).
11. Hsu, F., **Chen, H.** & Machiraju, S. WebCallerID: Leveraging Cellular Networks for Web Authentication. *Journal of Computer Security* **19**, 869–893 (2011).
12. Racic, R., Ma, D., **Chen, H.** & Liu, X. Exploiting and Defending Opportunistic Scheduling in Cellular Data Networks. *IEEE Transactions on Mobile Computing* **9**, 609–620. ISSN: 1536-1233 (2009).
13. Misherghi, G., Yuan, L., Su, Z., Chuah, C.-N. & **Chen, H.** A General Framework for Benchmarking Firewall Optimization Techniques. *IEEE Transactions on Network and Service Management* **5**, 227–238 (2008).
14. **Chen, H.**, Hu, J. & Sproat, R. Integrating Geometrical and Linguistic Analysis for E-mail Signature Block Parsing. *ACM Transactions on Information Systems* **17**, 343–366 (1999).

### In conference proceedings

1. He, Y., Wang, J., Rong, Y. & **Chen, H.** *FuzzAug: Data Augmentation by Coverage-guided Fuzzing for Neural Test Generation* in Conference on Empirical Methods in Natural Language Processing (Suzhou, China, Nov. 5–9, 2025).
2. He, Y., Yang, L., Gonzalo, C. & **Chen, H.** *Evaluating Program Semantics Reasoning with Type Inference in System F* in Neural Information Processing Systems (NeurIPS) (San Diego, CA, USA, Nov. 30–Dec. 7, 2025).
3. Zhang, H., **Chen, H.**, Chen, M. & Zhang, T. *Active Layer-Contrastive Decoding Reduces Hallucination in Large Language Model Generation* in Conference on Empirical Methods in Natural Language Processing (Suzhou, China, Nov. 5–9, 2025).
4. Liu, F., Zhang, Y., Luo, J., Dai, J., Chen, T., Yuan, L., Yu, Z., Shi, Y., Li, K., Zhou, C., **Chen, H.** & Yang, M. *Make Agent Defeat Agent: Automatic Detection of Taint-Style Vulnerabilities in LLM-based Agents* in USENIX Security Symposium (Seattle, WA, USA, Aug. 13–15, 2025).
5. He, Y., Wang, E., Rong, Y., Cheng, Z. & **Chen, H.** *Security of AI Agents* in IEEE/ACM International Workshop on Responsible AI Engineering (RAIE) (Ottawa, Ontario, Canada, Apr. 29, 2025).
6. Rong, Y., Yu, Z., Weng, Z., Neuendorffer, S. & **Chen, H.** *IRFuzzer: Specialized Fuzzing for LLVM Backend Code Generation* in IEEE/ACM International Conference on Software Engineering (ICSE) (Ottawa, Ontario, Canada, Apr. 27–May 3, 2025).
7. Li, Q., Guo, Y., Zuo, W. & **Chen, H.** *Improved Generation of Adversarial Examples Against Safety-aligned LLMs* in Neural Information Processing Systems (NeurIPS) (Vancouver, Canada, Dec. 9–15, 2024).
8. Huang, J., Zhao, J., Rong, Y., Guo, Y., He, Y. & **Chen, H.** *Code Representation Pre-training with Complements from Program Executions* in Conference on Empirical Methods in Natural Language Processing (EMNLP) (Miami, Florida, USA, Nov. 12–16, 2024).
9. Xiong, W., Guo, Y. & **Chen, H.** *The Program Testing Ability of Large Language Models for Code* in Conference on Empirical Methods in Natural Language Processing (EMNLP) (Miami, Florida, USA, Nov. 12–16, 2024).
10. Lyu, Y., Xie, Y., Chen, P. & **Chen, H.** *Prompt Fuzzing for Fuzz Driver Generation* in ACM Conference on Computer and Communications Security (CCS) (Salt Lake City, UT, USA, Oct. 14–18, 2024).

11. He, Y., Huang, J., Rong, Y., Guo, Y., Wang, E. & **Chen, H.** *UniTSyn: A Large-Scale Dataset Capable of Enhancing the Prowess of Large Language Models for Program Testing* in *International Symposium on Software Testing and Analysis (ISSTA)* (Vienna, Austria, Sept. 16–20, 2024).
12. Lin, J., Guo, Y. & **Chen, H.** *Intrusion Detection at Scale with the Assistance of a Command-line Language Model* in *Annual IEEE/IFIP International Conference on Dependable Systems and Networks (DSN)* (Brisbane, Australia, June 24–27, 2024).
13. Li, Q., Guo, Y., Zuo, W. & **Chen, H.** *Improving Adversarial Transferability via Intermediate-level Perturbation Decay* in *Neural Information Processing Systems (NeurIPS)* (New Orleans, LA, USA, Dec. 10–16, 2023).
14. Li, Q., Guo, Y., Zuo, W. & **Chen, H.** *Towards Evaluating Transfer-based Attacks Systematically, Practically, and Fairly* in *Neural Information Processing Systems (NeurIPS)* (New Orleans, LA, USA, Dec. 10–16, 2023).
15. Chen, P., Xie, Y., Lyu, Y., Wang, Y. & **Chen, H.** *HOPPER: Interpretative Fuzzing for Libraries* in *ACM Conference on Computer and Communications Security (CCS)* (Copenhagen, Denmark, Nov. 26–30, 2023).
16. Lin, F., Bai, B., Guo, Y., **Chen, H.**, Ren, Y. & Xu, Z. *MHCN: a Hyperbolic Neural Network Model for Multi-view Hierarchical Clustering* in *International Conference on Computer Vision (ICCV)* (Paris, France, Oct. 4–6, 2023).
17. Zhao, J., Rong, Y., Guo, Y., He, Y. & **Chen, H.** *Understanding Programs by Exploiting (Fuzzing) Test Cases* in *Findings of the Association for Computational Linguistics (ACL)* (Toronto, Canada, July 9–14, 2023).
18. Li, Q., Guo, Y., Zuo, W. & **Chen, H.** *Making Substitute Models More Bayesian Can Enhance Transferability of Adversarial Examples* in *International Conference on Learning Representations (ICLR)* (Kigali, Rwanda, May 1–5, 2023).
19. Li, Q., Guo, Y., Zuo, W. & **Chen, H.** *Squeeze Training for Adversarial Robustness* in *International Conference on Learning Representations (ICLR)* (Kigali, Rwanda, May 1–5, 2023).
20. Rong, Y., Zhang, C., Liu, J. & **Chen, H.** *Valkyrie: Improving Fuzzing Performance Through Deterministic Techniques* in *IEEE International Conference on Software Quality, Reliability, and Security (QRS)* (Guangzhou, China, Dec. 5–9, 2022). Best paper award.
21. Chen, J., Guo, Y., **Chen, H.** & Gong, N. *Membership Inference Attack in Face of Data Transformations* in *IEEE Conference on Communications and Network Security (CNS)* (Austin, TX, USA, Oct. 3–5, 2022).
22. Liu, B., Bai, B., Xie, W., Guo, Y. & **Chen, H.** *Task-optimized User Clustering based on Mobile App Usage for Cold-start Recommendations* in *ACM SIGKDD Conference on Knowledge Discovery and Data Mining* (Washington DC, USA, Aug. 14–18, 2022).
23. Jiang, Y., Cao, X., **Chen, H.** & Gong, N. *Feder: communication-efficient byzantine-robust federated learning* in *ICLR Workshop on Socially Responsible Machine Learning (SRML)* (Apr. 29–29, 2022).
24. Liu, Y., Fan, M., Liu, T., Hao, Y., Xu, Z., Chen, K., **Chen, H.** & Cai, Y. *ConcSpectre: Be Aware of Forthcoming Malware Hidden in Concurrent Programs* in *IEEE International Conference on Software Quality, Reliability, and Security (QRS)* (Dec. 6–10, 2021). Best paper award.
25. Liu, Z., Zhu, S., Qin, B., **Chen, H.** & Song, L. *Automatically Detecting and Fixing Concurrency Bugs in Go Software Systems* in *International Conference on Architectural Support for Programming Languages and Operating Systems (ASPLOS)* (Apr. 19–23, 2021).
26. Guo, Y., Li, Q. & **Chen, H.** *Backpropagating Linearly Improves Transferability of Adversarial Examples* in *Neural Information Processing Systems (NeurIPS)* (Dec. 6–12, 2020).
27. Li, Q., Guo, Y. & **Chen, H.** *Practical No-box Adversarial Attacks against DNNs* in *Neural Information Processing Systems (NeurIPS)* (Dec. 6–12, 2020).

28. Chen, H., Jiang, B. & **Chen, H.** *StyleCAPTCHA: CAPTCHA Based on Style-Transferred Images to Defend against Deep Convolutional Networks* in *ACM-IMS Foundations of Data Science Conference (FODS)* (Oct. 18–20, 2020).
29. Rong, Y., Chen, P. & **Chen, H.** *Integrity: Finding Integer Errors by Targeted Fuzzing* in *International Conference on Security and Privacy in Communication Networks (SecureComm)* (Oct. 21–23, 2020).
30. Li, Q., Guo, Y. & **Chen, H.** *Yet Another Intermediate-Level Attack* in *European Conference on Computer Vision (ECCV)* (Aug. 23–28, 2020).
31. Jia, Y., Lu, Y., Shen, J., Chen, Q. A., **Chen, H.**, Zhong, Z. & Wei, T. *Fooling Detection Alone Is Not Enough: Adversarial Attack Against Multiple Object Tracking* in *International Conference on Learning Representations (ICLR)* (Addis Ababa, Ethiopia, Apr. 26–30, 2020).
32. Chen, J., Wang, D. & **Chen, H.** *Explore the Transformation Space for Adversarial Images* in *ACM Conference on Data and Application Security and Privacy (CODASPY)* (New Orleans, LA, USA, Mar. 16–18, 2020).
33. Chen, J., Huang, H. & **Chen, H.** *Informer: Irregular Traffic Detection for Containerized Microservices RPC in the Real World* in *ACM/IEEE Workshop on Security and Privacy in Edge Computing (Edge S&P)* (Washington DC, USA, Nov. 7–9, 2019).
34. Chen, P., Liu, J. & **Chen, H.** *Matryoshka: Fuzzing Deeply Nested Branches* in *ACM Conference on Computer and Communications Security (CCS)* (London, UK, Nov. 11–15, 2019).
35. Yen, C.-C., Ghosal, D., Zhang, M., Chuah, C.-N. & **Chen, H.** *Falsified Data Attack on Backpressure-Based Traffic Signal Control Algorithms* in *IEEE Vehicular Networking Conference (VNC)* (Taipei, Taiwan, Dec. 5–7, 2018).
36. Liu, Y., Chen, J. & **Chen, H.** *Less Is More: Culling the Training Set to Improve Robustness of Deep Neural Networks* in *Conference on Decision and Game Theory for Security (GameSec)* (Seattle, WA, USA, Oct. 29–31, 2018).
37. Chen, P. & **Chen, H.** *Angora: Efficient Fuzzing by Principled Search* in *IEEE Symposium on Security & Privacy* (San Francisco, CA, USA, May 21–23, 2018).
38. Zhang, Y., Dai, J., Zhang, X., Huang, S., Yang, Z., Yang, M. & **Chen, H.** *Detecting Third-Party Libraries in Android Applications with High Precision and Recall* in *IEEE International Conference on Software Analysis, Evolution, and Reengineering (SANER)* (Campobasso, Italy, Mar. 20–23, 2018).
39. Meng, D. & **Chen, H.** *MagNet: a Two-Pronged Defense Against Adversarial Examples* in *ACM Conference on Computer and Communications Security (CCS)* (Dallas, TX, Oct. 30–Nov. 3, 2017).
40. Wu, Y., Meng, D. & **Chen, H.** *Evaluating Private Modes in Desktop and Mobile Browsers and Their Resistance to Fingerprinting* in *IEEE Conference on Communications and Network Security (CNS)* (Las Vegas, NV, Oct. 9–11, 2017).
41. Vronsky, J., Stevens, R. & **Chen, H.** *SurgeScan: Enforcing Security Policies on Untrusted Third-Party Android Libraries* in *IEEE Conference on Advanced and Trusted Computing (ATC)* (San Francisco, CA, Aug. 4–8, 2017).
42. Chen, P. & **Chen, H.** *Security Analysis of Personal Unmanned Aerial Vehicles* in *International Conference on Security and Privacy in Communication Networks (SECURECOMM)* (Guangzhou, China, Oct. 10–12, 2016).
43. Qu, Z., Guo, G., Shao, Z., Rastogi, V., Chen, Y., **Chen, H.** & Hong, W. *AppShield: Enabling Multi-Entity Access Control Cross Platforms for Mobile App Management* in *International Conference on Security and Privacy in Communication Networks (SECURECOMM)* (Guangzhou, China, Oct. 10–12, 2016).
44. Fang, Z., Han, W., Li, D., Guo, Z., Guo, D., Wang, X. S., Qian, Z. & **Chen, H.** *RevDroid: Code Analysis of the Side Effects After Dynamic Permission Revocation of Android Apps* in *ACM Asia Conference on Computer and Communications Security (ASIACCS)* (Xi'an, China, May 30–June 3, 2016).

45. Stevens, R., Crussell, J. & **Chen, H.** *On the Origin of Mobile Apps: Network Provenance for Android Applications* in *ACM Conference on Data and Application Security and Privacy (CODASPY)* (New Orleans, LA, Mar. 9–11, 2016).

46. Stevens, R. & **Chen, H.** *Predictive Eviction: a Novel Policy for Optimizing TLS Session Cache Performance* in *IEEE Global Communications Conference: Communications and Information System Security (GLOBECOM)* (San Diego, CA, Dec. 6–10, 2015).

47. Zhang, Y., Yang, M., Gu, G. & **Chen, H.** *FineDroid: Enforcing Permissions with System-Wide Application* in *International Conference on Security and Privacy in Communication Networks (SECURECOMM)* (Dallas, TX, Oct. 26–29, 2015).

48. Cai, F., **Chen, H.**, Wu, Y. & Zhang, Y. *AppCracker: Widespread Vulnerabilities in User and Session Authentication in Mobile Apps* in *IEEE Mobile Security Technologies (MoST)* (San Jose, CA, May 21, 2015).

49. Crussell, J., Stevens, R. & **Chen, H.** *MAdFraud: Investigating Ad Fraud in Android Applications* in *International Conference on Mobile Systems, Applications and Services (MobiSys)* (Bretton Woods, NH, USA, June 16–19, 2014).

50. Defreez, D., Shastry, B., **Chen, H.** & Seifert, J.-P. *A First Look At Firefox OS Security* in *IEEE Mobile Security Technologies (MoST)* (San Jose, CA, May 17, 2014).

51. Posnett, D., Kavaler, D., Gibler, C., **Chen, H.**, Devanbu, P. & Filkov, V. *Using and Asking: APIs Used in the Android Market and Asked About in stackoverflow* in *International Conference on Social Informatics (SocInfo)* (Kyoto, Japan, Nov. 25–27, 2013).

52. Crussell, J., Gibler, C. & **Chen, H.** *Scalable Semantics-Based Detection of Similar Android Applications* in *European Symposium on Research in Computer Security (ESORICS)* (Egham, U.K., Sept. 9–13, 2013).

53. Davis, B. & **Chen, H.** *Retrofitting Android Apps* in *International Conference on Mobile Systems, Applications and Services (MobiSys)* (Taipei, Taiwan, June 25–28, 2013).

54. Gibler, C., Stevens, R., Crussell, J., **Chen, H.**, Zang, H. & Choi, H. *Characterizing Android Application Plagiarism and Its Impact on Developers* in *International Conference on Mobile Systems, Applications and Services (MobiSys)* (Taipei, Taiwan, June 25–28, 2013).

55. Gustafson, E., Kennedy, K. & **Chen, H.** *Quantifying the Effects of Removing Permissions from Android Applications* in *IEEE Mobile Security Technologies (MoST)* (San Francisco, CA, May 23, 2013).

56. Stevens, R., Ganz, J., Devanbu, P., **Chen, H.** & Filkov, V. *Asking for (and About) Permissions Used by Android Apps* in *Working Conference on Mining Software Repositories (MSR)* (San Francisco, CA, May 18–19, 2013).

57. Crussell, J., Gibler, C. & **Chen, H.** *Attack of the Clones: Detecting Cloned Applications on Android Markets* in *European Symposium on Research in Computer Security (ESORICS)* (Pisa, Italy, Sept. 10–12, 2012).

58. Cai, L. & **Chen, H.** *On the Practicality of Motion Based Keystroke Inferne Attack* in *International Conference on Trust & Trustworthy Computing (TRUST)* (Vienna, Austria, June 13–15, 2012).

59. Gibler, C., Crussell, J., Erickson, J. & **Chen, H.** *AndroidLeaks: Automatically Detecting Potential Privacy Leaks in Android Applications on a Large Scale* in *International Conference on Trust & Trustworthy Computing (TRUST)* (Vienna, Austria, June 13–15, 2012).

60. Maganis, G., Shi, E., **Chen, H.** & Song, D. *Opaak: Using Mobile Phones to Limit Anonymous Identities Online* in *International Conference on Mobile Systems, Applications and Services (MobiSys)* (Low Wood Bay, Lake District, United Kingdom, June 26–28, 2012).

61. Davis, B., **Chen, H.** & Franklin, M. *Privacy-Preserving Alibi Systems* in *ACM Symposium on Information, Computer and Communications Security (ASIACCS)* (Seoul, South Korea, May 1–3, 2012).

62. Davis, B., Sanders, B., Khodaverdian, A. & **Chen, H.** *I-ARM-Droid: a Rewriting Framework for In-App Reference Monitors for Android Applications* in *IEEE Mobile Security Technologies (MoST)* (San Francisco, CA, May 24, 2012).

63. Stevens, R., Gibler, C., Crussell, J., Erickson, J. & **Chen, H.** *Investigating User Privacy in Android Ad Libraries* in *IEEE Mobile Security Technologies (MoST)* (San Francisco, CA, May 24, 2012).

64. Cai, L. & **Chen, H.** *TouchLogger: Inferring Keystrokes on Touch Screen from Smartphone Motion* in *USENIX Workshop on Hot Topics in Security (HotSec 11)* (San Francisco, CA, Aug. 9–9, 2011).

65. Niu, Y. & **Chen, H.** *Gesture Authentication with Touch Input for Mobile Devices* in *International Conference on Security and Privacy in Mobile Information and Communication Systems (MobiSec)* (Aalborg, Denmark, May 17–19, 2011).

66. Cai, L., Zeng, K., **Chen, H.** & Mohapatra, P. *Good Neighbor: Ad Hoc Pairing of Nearby Wireless Devices by Multiple Antennas* in *Annual Network and Distributed System Security Symposium (NDSS)* (San Diego, CA, Feb. 6–9, 2011).

67. Davis, B. & **Chen, H.** *DBTaint: Cross-Application Information Flow Tracking Via Databases* in *USENIX Conference on Web Application* (Boston, MA, June 23–24, 2010).

68. Cai, L., Machiraju, S. & **Chen, H.** *CapAuth: a Capability-Based Handover Scheme* in *IEEE Conference on Computer Communications (INFOCOM)* (San Diego, CA, Mar. 15–19, 2010).

69. Goldberg, I., Ustaoglu, B., Van Gundy, M. & **Chen, H.** *Multi-Party Off-the-Record Messaging* in *ACM Conference on Computer and Communications Security (CCS)* (Chicago, IL, Nov. 9–13, 2009).

70. Hsu, F. & **Chen, H.** *Secure File System Services for Web 2.0 Applications* in *ACM Cloud Computing Security Workshop (CCSW 2009)* (Chicago, IL, Nov. 13–13, 2009).

71. Cai, L., Maganis, G., Zang, H. & **Chen, H.** *Mitigating DoS Attacks on the Paging Channel by Efficient Encoding in Page Messages* in *International Conference on Security and Privacy in Communication Networks (SecureComm)* (Athens, Greece, Sept. 14–18, 2009).

72. Cai, L., Machiraju, S. & **Chen, H.** *Defending Against Sensor-Sniffing Attacks on Mobile Phones* in *The First ACM SIGCOMM Workshop on Networking, Systems, Applications on Mobile Handhelds (MobiHeld)* (Barcelona, Spain, Aug. 17–17, 2009).

73. Ye, S., Wu, F., Pandey, R. & **Chen, H.** *Noise Injection for Search Privacy Protection* in *IEEE International Conference on Privacy, Security, Risk and Trust (PASSAT)* (Vancouver, Canada, Aug. 29–31, 2009).

74. Becker, J. & **Chen, H.** *Measuring Privacy Risk in Online Social Networks* in *Web 2.0 Security and Privacy (W2SP)* (Oakland, CA, May 21–21, 2009).

75. Van Gundy, M. & **Chen, H.** *Noncespaces: Using Randomization to Enforce Information Flow Tracking and Thwart Cross-Site Scripting Attacks* in *Annual Network and Distributed System Security Symposium (NDSS)* (San Diego, CA, Feb. 8–11, 2009).

76. Crites, S., Hsu, F. & **Chen, H.** *OMash: Enabling Secure Web Mashups Via Object Abstractions* in *ACM Conference on Computer and Communications Security (CCS)* (Alexandria, VA, Oct. 27–31, 2008), 99–107.

77. Niu, Y., Hsu, F. & **Chen, H.** *iPhish: Phishing Vulnerabilities on Consumer Electronics in Usability, Psychology, and Security 2008* (San Francisco, CA, Apr. 14–14, 2008).

78. Machiraju, S., **Chen, H.** & Bolot, J. *Distributed Authentication for Low-Cost Wireless Networks* in *Workshop on Mobile Computing Systems and Applications (HotMobile)* (Napa Valley, CA, Feb. 25–26, 2008), 55–59.

79. Racic, R., Ma, D., **Chen, H.** & Liu, X. *Exploiting Opportunistic Scheduling in Cellular Data Networks* in *Annual Network and Distributed System Security Symposium (NDSS)* (San Diego, CA, Feb. 10–13, 2008), 333–345.

80. Van Gundy, M., **Chen, H.**, Su, Z. & Vigna, G. *Feature Omission Vulnerabilities: Thwarting Signature Generation for Polymorphic Worms* in *Annual Computer Security Applications Conference (ACSAC)* (Miami Beach, FL, Dec. 10–14, 2007), 74–83.
81. Wang, Y.-M., Ma, M., Niu, Y. & **Chen, H.** *Spam Double-Funnel: Connecting Web Spammers with Advertisers* in *International World Wide Web Conference (WWW)* (Banff, Canada, May 8–12, 2007).
82. Niu, Y., Wang, Y.-M., **Chen, H.**, Ma, M. & Hsu, F. *A Quantitative Study of Forum Spamming Using Context-Based Analysis* in *Annual Network and Distributed System Security Symposium (NDSS)* (San Diego, CA, Feb. 28–Mar. 2, 2007), 79–92.
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84. Racic, R., Ma, D. & **Chen, H.** *Exploiting MMS Vulnerabilities to Stealthily Exhaust Mobile Phone's Battery* in *International Conference on Security and Privacy in Communication Network (SecureComm)* (Baltimore, MD, Aug. 28–Sept. 1, 2006).
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