

ADRIAN (SHUAI) LI

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EDUCATION

Purdue University

Ph.D. in Computer Science, Advisor: Elisa Bertino, GPA: 4.0/4.0

2021 - Present

West Lafayette, IN

University of Calgary

M.Sc. in Computer Science, Advisor: Rei Safavi-Naini, GPA: 4.0/4.0

Jan. 2020

Calgary, Canada

Master Thesis: A Capability-based System to Enforce Context-aware Permission Sequences

Wuhan University

BSc. in Computer Science, GPA: 3.7/4.0

Jul. 2017

Wuhan, China

ACADEMIC EXPERIENCE

Purdue University

Graduate Research Assistant, Advisor: Elisa Bertino

May 2021 – Present

West Lafayette, IN

- Topic: Transfer learning for security; domain adaptation for improved representation learning

University of Calgary

Graduate Research Assistant, Advisor: Rei Safavi-Naini

Sep. 2017 – Jan. 2020

Calgary, Canada

- Topic: Context-aware distributed authorization

INDUSTRY EXPERIENCE

IBM Research

Collaborative Researcher, Collaborators: Mark Wegman, Yuhai Tu

May 2021 – Present

Yorktown Heights, NY

- Topic: Domain adaptation for cross-domain classification

Cisco Research

Research Intern III, Hosts: Ashish Kundu, Arun Iyengar

May 2023 – Aug. 2023

San Jose, CA

- Topic: Graph-based learning for malware detection

Aviatrix Systems

Software Developer Intern, Hosts: Susan Hinrichs, Joshua Juen

May 2022 – Aug. 2022

Champaign, IL

- Topic: Machine learning methods for network intrusion detection

TELUS Communications

Security Research Intern, Host: Marc Kneppers

Mar. 2020 – Sep. 2020

Calgary, Canada

- Topic: Context-aware token-based authentication in Ansible Tower

PUBLICATIONS

All publications are available on my website: <https://gloryer.github.io/>.

Preprints Under Review

- [P1] Li, A. S., Bertino, E., Dang, X. H., Singla, A., Tu, Y., & Wegman, M. N. (2024). Maximal Domain Independent Representations Improve Transfer Learning. URL <https://arxiv.org/abs/2306.00262>. Under Review

Peer-Reviewed Journal Articles

- [J1] [Computers & Security] Bhardwaj, S., Li, A. S., Dave, M., & Bertino, E. (2024). Overcoming the lack of labeled data: Training malware detection models using adversarial domain adaptation. Computers & Security. doi:10.1016/j.cose.2024.103769

Peer-Reviewed Conference Papers

- [C1] [NDSS'25] Li, A. S., Iyengar, A., Kundu, A. and Bertino, E., (2024). Revisiting Concept Drift in Windows Malware Detection: Adaptation to Real Drifted Malware with Minimal Samples. Network and Distributed System Security Symposium 2025. URL: <https://arxiv.org/abs/2407.13918>. To Appear
- [C2] [ICIT'23] Li, A. S., Bertino, E., Wu, R. T., & Wu, T. Y. (2023). Building Manufacturing Deep Learning Models with Minimal and Imbalanced Training Data Using Domain Adaptation and Data Augmentation. In 2023 IEEE International Conference on Industrial Technology. doi:10.1109/ICIT58465.2023.10143099
- [C3] [SACMAT'22] Li, A. S., Safavi-Naini, R., & Fong, P. W. (2022). A Capability-based Distributed Authorization System to Enforce Context-aware Permission Sequences. In Proceedings of the 27th ACM on Symposium on Access Control Models and Technologies. doi:10.1145/3532105.3535014

- [C4] **[FPS 2019]** Avizheh, S., Safavi-Naini, R., & **Li, S.** (2020). Secure Logging with Security Against Adaptive Crash Attack. In Foundations and Practice of Security: 12th International Symposium. Springer International Publishing. doi: [10.1007/978-3-030-45371-8_9](https://doi.org/10.1007/978-3-030-45371-8_9)
- [C5] **[IoT S & P][Best paper award]** Doan, T. T., Safavi-Naini, R., **Li, S.**, Avizheh, S., K, M. V., & Fong, P. W. (2018). Towards a resilient smart home. In Proceedings of the ACM SIGCOMM 2018 Workshop on IoT Security and Privacy. doi: [10.1145/3229565.3229570](https://doi.org/10.1145/3229565.3229570)

Books

- [B1] Bertino, E., Bhardwaj, S., Cicala, F., Gong, S., Karim, I., Katsis, C., Lee, H., **Li, A.S.** and Mahgoub, A.Y., (2023). Machine Learning Techniques for Cybersecurity. Springer Nature. doi: [10.1007/978-3-031-28259-1](https://doi.org/10.1007/978-3-031-28259-1)

Theses

- [T1] **Li, S.** (2020). A Capability-based System to Enforce Context-aware Permission Sequence. Master's thesis, University of Calgary, Calgary, Canada

AWARDS AND HONORS

Academic and Research Standing Excellence 2024	Purdue University Computer Science Department
[C5]. Best paper award	IoT S&P 2018
Mitacs Globalink Graduate Fellowship	Mitacs
Academic Excellence Scholarship	Wuhan University

RESEARCH MENTORING

Md Ajwad Akil (PhD), Purdue CS

PROFESSIONAL SERVICE

Reviewer

- WIREs Data Mining and Knowledge Discovery
- IEEE International Conference on Data Engineering (ICDE), 2024
- IEEE Global Communications Conference (Globecom), 2024
- European Symposium on Research in Computer Security (ESORICS), 2024
- Annual Computer Security Applications Conference (ACSAC), 2023, 2024
- The ACM Symposium on Access Control Models and Technologies (SACMAT), 2022, 2024
- ACM Conference on Data and Application Security and Privacy (CODASPY), 2022, 2024

TEACHING

Purdue University	Spring 2023 and 2024
<i>Guest Lecturer: CS 59000-DSP Data Security And Privacy</i>	West Lafayette, IN
Purdue University	Spring 2021
<i>Graduate Teaching Assistant for CS 182</i>	West Lafayette, IN

OTHER SERVICE

University of Calgary Computer Science Graduate Society	Jun. 2018 – May 2019
<i>Vice President</i>	Calgary, Canada
Security Researchers and Industry Experts Talks	Sep. 2018
<i>Program Committee</i>	Calgary, Canada
The 25th Conference on Selected Areas in Cryptography	Aug. 2018
<i>Student Volunteer</i>	Calgary, Canada

INVITED TALKS

Cisco Open Mic Talks	Nov. 2023
<i>Domain Adaptation for Malware Classification Using Control Flow Graphs</i>	Virtual

CERTIFICATE

Aviatrix Systems	May 2022
Multi-Cloud Network Professional	