

Soo Yee Lim

PhD Candidate, University of British Columbia, Canada

Education

- 2021 – Present **PhD in Computer Science**, *University of British Columbia, Canada.*
Advisor: Prof. Thomas Pasquier
- 2019 – 2021 **Postgraduate Diploma in Cyber Security**, *University of Bristol, United Kingdom.*
Note: withdrawn from the PhD program due to relocation to Canada
Advisor: Prof. Thomas Pasquier
- 2016 – 2019 **Bachelor of Science in Computer Science**, *University of Bristol, United Kingdom.*
Thesis: An Evaluation of The Impact of Double Encryption on Industrial Control Systems
Advisor: Prof. Awais Rashid

Publications

- [1] *Lim, Soo Yee, Sidharta Agrawal, Xueyuan Han, David Eysers, Dan O’Keeffe, and Thomas Pasquier.* "Securing Monolithic Kernels using Compartmentalization." Under review at ACM Computing Surveys.
- [2] *Lim, Soo Yee, Tanya Prasad, Xueyuan Han, and Thomas Pasquier.* "SafeBPF: Safer eBPF Kernel Extensions with ARM MTE." Proceedings of the Cloud Computing Security Workshop. 2024.
- [3] *Cao, Xuechun, Shaurya Patel, Soo Yee Lim, Xueyuan Han, and Thomas Pasquier.* "FetchBPF: Customizable Prefetching Policies in Linux with eBPF." Proceedings of the USENIX Annual Technical Conference. 2024.
- [4] *Lim, Soo Yee, Xueyuan Han, and Thomas Pasquier.* "Unleashing Unprivileged eBPF Potential with Dynamic Sandboxing." Proceedings of the 1st Workshop on eBPF and Kernel Extensions. 2023.
- [5] *Lim, Soo Yee, Xueyuan Han, and Thomas Pasquier.* "Secure Namespaced Kernel Audit for Containers." Proceedings of the ACM Symposium on Cloud Computing. 2021.
- [6] *Lim, Soo Yee, Joseph Gardiner, Barnaby Craggs, and Awais Rashid.* "RESTful HTTPS over Zigbee: Why and How?." 6th International Symposium for ICS & SCADA Cyber Security Research. 2019.

Awards

- 2021 – 2024 **President’s Academic Excellence Initiative PhD Award.**
Awarded to PhD students to recognize the significant contributions to the research activities at the University of British Columbia, Canada.

- 2019 – 2021 **EPSRC Fully-Funded PhD Scholarship.**
One of the five recipients funded by the UK Engineering and Physical Sciences Research Council (EPSRC) to pursue a PhD at the University of Bristol, United Kingdom.
- 2019 **Best Computer Security Project.**
Awarded to the best computer security thesis among undergraduate and Master's students in the Computer Science department at the University of Bristol, United Kingdom.
- 2018 **Boeing Scholarship.**
Awarded to the top scholars of the Computer Science undergraduate cohort.

Work Experience

- 2021 – Present **Graduate Research Assistant, University of British Columbia, Canada.**
 - Conduct research with Thomas Pasquier.
- 2023 **Visiting Student, University of Cambridge, United Kingdom.**
 - Visit the NetOS group at the invitation of Jon Crowcroft.
- 2023 **Teaching Assistant Award Committee, University of British Columbia, Canada.**
 - Review and rate TA award nominations.
- 2022 – 2023 **Graduate Admission Committee, University of British Columbia, Canada.**
 - Review and rate graduate student applications.
- 2022 – 2023 **Teaching Assistant Coordinator, University of British Columbia, Canada.**
 - Lead training for new teaching assistants.
 - Provide consultation to teaching assistants needing advice on how to navigate their roles.
 - Assist with resolving issues received from course instructors and teaching assistants.
- 2017 – 2021 **Teaching Assistant, University of Bristol, United Kingdom.**
 - Assist in teaching 5 courses: Functional Programming, Concurrent Computing, Computer Systems, Systems Software Security, and Mathematical Methods for Computer Scientists.
 - Develop a text rendering tool for setting up examinations on Blackboard (a virtual learning environment) during Covid.
- 2018, 2019 **Summer Research Intern, University of Bristol, United Kingdom.**
 - Extend undergraduate thesis project to add support for the WirelessHART protocol.
 - Collaborate with Prof. Bernard Stark to implement an ultrasonic sensor prototype with zero standby power.

Service

- 2019 Artifact evaluation for ACM EuroSys.
- 2017 – 2019 Volunteer to lead STEM workshops for Robogals Bristol, a student-led organization inspiring young women to pursue engineering and related fields.

Invited Talks

- 2024 **Towards Safe Kernel Extensibility With eBPF.**
eBPF Summit.
- 2023 **Spatial Memory Safety for eBPF Kernel Extensions.**
SOSP Doctoral Workshop.
- 2023 **Spatial Memory Safety for eBPF Kernel Extensions.**
University of Cambridge, United Kingdom. Host: Jon Crowcroft