Soo Yee Lim

PhD Student, University of British Columbia, Canada

Education

2021 – Present	**PhD in Computer Science**, *University of British Columbia*, Canada. Advisor: Thomas Pasquier
2019 – 2021	**Postgraduate Diploma in Cyber Security**, *University of Bristol*, United Kingdom. Advisor: 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: Awais Rashid

Publications

[1] *Lim, Soo Yee*, Sidharta Agrawal, Xueyuan Han, David Eyers, 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 Crowcoft.

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