

Education

PhD in Computer Science (In Progress), University of California, Los Angeles	Sept 2023-Sept 2028
<ul style="list-style-type: none">Supervised by Professor Abari at the ICON Lab.	
BSc Hons Co-op, Computer Science, University of Manitoba	Sept 2018-Apr 2023
<ul style="list-style-type: none">Graduated with the highest standing in the Faculty of Science Honours BSc, GPA: 4.49/4.50	

Publications

Vattheuer, C., J, Feng., H, Khalili., N, Sehatbakhsh., O, Abari.:XR Devices Send WiFi Packets When They Should Not: Cross-Building Keylogging Attacks via Non-Cooperative Wireless Sensing (Under Submission)

Lu H., **Vattheuer, C.,** Mirzasoleiman, B., Abari, O.: NeWRF: A Deep Learning Framework for Wireless Radiation Field Reconstruction and Channel Prediction. In: Forty-first International Conference on Machine Learning (ICML) 2024

Vattheuer, C., C, Liu., A, Abedi., O, Abari.: Is Z-Wave Reliable for IoT Sensors?. In: Sensors Journal. IEEE. (2023)

Vattheuer, C., Baecker, A.N., Geiskovitch, D.Y., Seo, S.H., Rea, D.J., Young, J.E.: Blind Trust: how making a device humanoid reduces the impact of functional errors on trust. In: International Conference on Social Robotics. Springer. (2020)

Awards

Department of Computer Science Graduate Award , University of California, Los Angeles	2023
Faculty of Science Medal in B.Sc. (Honours) , University of Manitoba	2023
Undergraduate Research Fellowship Award , University of Waterloo	2021
UMSU Undergraduate Research Award , University of Manitoba	2021
Presidents Scholar Society , University of Manitoba	2018-2021
Isbister Scholarship for Highest Standing in Faculty of Science , University of Manitoba	2020

Work Experience

DeweyVision, Machine Learning Engineer	Oct 2022-Sept 2023
<ul style="list-style-type: none">Led research exploring high speed and robust video fingerprinting algorithms to revolutionize video post-production.Implemented new AI technology with test driven development in C++, Rust, and Python.	
Cisco Systems, Technical Undergraduate Co-op	Sept 2021-Dec 2021 and Jun 2022-Aug 2022
<ul style="list-style-type: none">Worked directly under Cisco's Head of Responsible AI Research to aid in designing and creating an open-source tool, RAI, for assisting in multimodal Responsible AI development presented by Cisco's head of research at SIGCOMM 2022.Performed literature searches, created presentations, and programmed in Python with over 45k delta.Led work with a PhD student to add new visualization techniques to RAI.	
Google, Software Engineering Intern	Jan 2022-Apr 2022
<ul style="list-style-type: none">Worked on AI Retail Search Solutions within Google Cloud on a project which was a blocker for a public release.Used C++ along with several other languages to create internal tools for metric gathering and visualization.Created clear documentation and worked closely with several teams to provide guidance on removing a release blocker.	
University of Waterloo - Internet of Things Lab, Co-op Student	Jan 2021-Apr 2021
<ul style="list-style-type: none">Researched and developed a new attack on wireless security devices to increase their power consumption by 1500x to highlight problems with existing Z-Wave protocol, published in IEEE Sensors Journal.Collected and analyzed millions of datapoints to successfully infer information about Z-Wave protocol.	
University of Manitoba - Computer Vision Lab, Student Research Assistant	May 2020-Aug 2020
<ul style="list-style-type: none">Designed a state-of-the-art technique for the distillation of residual neural networks while maintaining high accuracy.Maintained rigorous logs on performance data which proved to be critical for the overall direction of the project.	
University of Manitoba - HCI Lab, Student Research Assistant	May 2019-Dec 2019
<ul style="list-style-type: none">Designed an experiment, in collaboration with graduate students and Dr. Young, investigating the impact of humanoid embodiments on trust, increasing transparency around humanoid agents.Published work in ICSR 2020.	