Yiyang Lu

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EDUCATION

William & Mary — Williamsburg,VA,US
Ph.D. in Computer science, Advisor: Prof. Jie Ren, Prof. Evgenia Smirni — Sep 2021 — Present

University of Electronic Science and Technology of China — Chengdu, China
Bachelor in Software Engineering — Sep 2016 — Sep 2020

PUBLICATIONS

Yiyang Lu , Jie Ren, Evgenia Smirni. "Unveiling HPC Secrets: A Fundamental ML Model for Telemetry Analysis and Beyond."(SUBMITTED)

Anna Schmedding, Philip Schowitz, Xugui Zhou, **Yiyang Lu**, Lishan Yang, Homa Alemzadeh and Evgenia Smirni. "Strategic Resilience Evaluation of Neural Networks within Autonomous Vehicle Software." In SAFECOMP2024: 43rd International Conference on Computer Safety, Reliability and Security.

Yiyang Lu , Jie Ren, Yasir Alanazi, Ahmed Mohammed, Diana McSpadden, Laura Hild, Mark Jones, Wesley Moore, Malachi Schram, Bryan Hess, Evgenia Smirni. "Investigating Anomalies in Compute Clusters: An Unsupervised Learning Approach." In SC '23 Research Posters: Proceedings of the International Conference on High Performance Computing, Networking, Storage and Analysis, November 2023.

Bi, Shengjie, **Yiyang Lu**, Nicole Tobias, Ella Ryan, Travis Masterson, Sougata Sen, Ryan Halter, Jacob Sorber, Diane Gilbert-Diamond, and David Kotz. "Measuring Children's Eating Behavior with a Wearable Device." In 2020 IEEE International Conference on Healthcare Informatics (ICHI), 1–11. Oldenburg, Germany: IEEE, 2020.

EXPERIENCE

William & Mary, Research Assistant — Williamsburg,VA,US
Reliability research — June 2022 - Present

William & Mary, Teaching Assistant — Williamsburg,VA,US
Discrete Structures, Network Systems and Design, Data Structures — Sep 2021 - May 2022

ByteDance, Research & Development Intern — Shenzhen,China
Network Traffic Analysis — Dec 2020 - Jul 2021

Shenzhen Institute of Advanced Technology, Research Assistant — Shenzhen,China
Brain-Computer Interface and Neuromorphic Intelligence — May 2020 - Oct 2020

Dartmouth College, Research Assistant — Hanover,NH,US
Auracle – wearable technology for the study of eating behavior — Mar 2019 - Aug 2019

PROJECTS

HPC telemetry Analysis (W&M, Jefferson Lab) — May 2023 - Now

- Propose an unsupervised foundational model for HPC telemetry analysis.
- Explore and visualize temporal and cross-telemetry relationships among HPC telemetry data.

Resilience Evaluation of Autonomous Vehicle Model (W&M, UVA) — May 2023 - May 2024

- Apply Ranger on Autonomous Vehicle Model to mitigate the impact of faults.
- Help setup the autonomous vehicle simulator 'Carla' environment.

Network Traffic Analysis (ByteDance) — Dec 2020 - Jul 2021

- Optimize the rules and policies for NTA (Network Traffic Analysis).
- Work with HIDS (host-based intrusion detection system) team as blue team to trace anomalies

Brain-Computer Interface (Shenzhen Institute of Advanced Technology) — May 2020 - Oct 2020

- Implement SPI communication on STM32F407ZG, real-time ADC-URAT-BLE on NRF52840
- Configure 'Neuronpixels' electrodes

Auracle (Dartmouth College) — Mar 2019 - Aug 2019

- Implement the energy-efficient algorithm for classification task on a wearable device
- Implement the real-time contact-mic data collecting algorithm on Ti msp430fr5994

SERVICE

MSN 2022: The 18th International Conference on Mobility, Sensing and Networking (subreviewer)
Sigmetrics'24: Special Interest Group on Measurement and Evaluation 2024 (subreviewer)
Sigmetrics'25: Special Interest Group on Measurement and Evaluation 2025 (subreviewer)