

Yuqi Zhao

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Education

- PhD** **Politecnico di Torino**, Control and Computer Engineering Nov 2024 – Present
- **Supervisor:** [Prof. Marco Mellia](#)
 - **Research Topic:** Continuous Machine Learning for Cybersecurity
 - **Research Interests:** Network Traffic Analysis, Explainable AI (xAI)
- MS** **Beijing University of Posts and Telecommunications (BUPT)**, Computer Science and Technology Sept 2020 – Jun 2023
- **GPA:** 85/100 (Ranking 1%)
 - **Supervisor:** [Prof. Xiaohong Huang](#)
 - **Master Thesis:** A Cluster-Asynchronous Federated Multi-Task Learning
- BS** **Queen Mary University of London** Sept 2016 – Jun 2020
- Bachelor of Science (Engineering) with **First Class Honors**
 - Joint Bachelor Degree Programmes with BUPT
- BUPT**, E-Commerce Engineering with Law
- **GPA:** 86.06/100 (Ranking 9%)
 - **Supervisor:** [Prof. Gareth Tyson](#)
 - **Bachelor Thesis:** A Mobile App for Collecting Network Measurement Data

Publications

- The Sweet Danger of Sugar: Debunking Representation Learning for Encrypted Traffic Classification** SIGCOMM '2025
- Yuqi Zhao*, Giovanni Dettori, Matteo Boffa, Luca Vassio, Marco Mellia
In *Proceedings of the ACM SIGCOMM 2025 Conference (SIGCOMM '25)*. Association for Computing Machinery, New York, NY, USA, 296–310. [🔗](#)
- The Sweet Danger of Sugar: Debunking Representation Learning for Encrypted Traffic Classification with Explainable AI** IEEE/ACM ToN
- Yuqi Zhao*, Giovanni Dettori, Matteo Boffa, Luca Vassio, Marco Mellia
Under review
- ShortcutCatcher: Making traffic classification reliable** CoNEXT '2026
- Yuqi Zhao*, Matteo Boffa, Luca Vassio, Marco Mellia
Under review

Projects

- Artificial Intelligence for Cyber Threat Intelligence** May 2025 - Present
- Focus on sensitive information detection and high-quality samples generation, to reduce overfitting and enhance model generalization to real-world scenarios
- Joint Research on IPv6 Network Management: Research Development and Demonstration** Sep 2020 - May 2023
- **Federated Learning System based on Consortium Chain:** Implement a reliable and secure federated learning system with Consortium Chain
 - **Active measurement system based on IPv6:** Implement an active measurement systems by devices probing to assess current IPv4/IPv6 networks.

Experience

Hybrid Heuristic Approaches for Solving Multi-Agent Path Finding Problem

Sep 2023 - Aug 2024

- **Supervisor:** [Prof. Jin-Kao Hao](#)  **Co-supervisor:** [Prof. Eric Monfroy](#) 
- **Topic:** Hybrid Heuristic Approaches for Solving Multi-Agent Path Finding Problem

Teaching

Machine Learning for Networking, Teaching Assistant

Sep 2025 – Jan 2026

- Designed and delivered hands-on laboratory sessions on network data analysis and supervised learning methods
- Co-designed course projects and mentored student teams on experimental design and technical reporting

Internet Application, Teaching Assistant

Mar 2021 – Jul 2021

- Designed experimental labs for application-layer protocols and Internet systems
- Guided students in hands-on programming exercises and evaluated coursework and projects

Skills

Networking & Systems: Wireshark, Scapy, Network Traffic Collection and Analysis

Machine Learning Methods: Representation Learning, Self-supervised /Pre-training, xAI, Shortcut Learning

Machine Learning Frameworks: PyTorch, AutoGluon, Distributed Data Parallel (DDP)

Optimization & Heuristics: Genetic Algorithms, Local Search

Awards

Outstanding Graduate Award, Beijing University of Posts and Telecommunications (2023)

Outstanding Undergraduate Award, Beijing University of Posts and Telecommunications (2020)

University Academic Scholarship (2017–2022)