HAO ZHOU

Postdoctoral Researcher, School of Computer Science, McGill Unversity haozhou029@gmail.com
Google Scholar || LinkedIn || Personal Website

PERSONAL PROFILE

Over 40 peer-reviewed publications on IEEE journals/flagship conferences with **1000+ citations**;

Best Doctoral Thesis Award (**1st position** in 2023 Engineering PhD graduates, University of Ottawa);

2 Best Paper Awards from IEEE CSIM committee and IEEE ICC (16 selected from 2778 submissions);

Mentored nearly 10 PhD and Master students, growing team members' technical and professional skills;

5+ Invited Talks/Tutorials/Technical Committee Members (TPC) at IEEE Future Networks, IEEE ICC conference.

Leading **multiple industrial collaborations** with Ericsson Canada (MITACS Accelerate Program, **6 patented AI solutions**) and Samsung Research America (Samsung Global Research Outreach grant, **11 projects selected globally**);

Research Interests: **Reinforcement learning (RL) theories** (Multi-agent RL, Transfer RL, Hierarchical RL) and applications (**Edge and on-device intelligence**, 5G/6G network optimization, Smart home and energy trading);

Large language models theories (**Prompting and in-context learning, Retrieval Augmented Generation (RAG), Knowledge graph)** and applications (**Edge-cloud LLM deployment, Network optimization and prediction, Telecom-domain knowledge understanding, Structured entity extraction.**)

WORK EXPERIENCE & EDUCATION

Postdoctoral Researcher, School of Computer Science, McGill University, Canada Oct.2023 – Present
Supervisor: Dr. Xue (Steve) Liu, William Dawson Chair Professor, IEEE Fellow, Fellow of Canadian Academy of Engineering (CAE).

Ph.D. in Electrical and Computer Engineering, University of Ottawa, Canada Sep.2019 – Aug. 2023
Supervisor: Dr. Melike Erol-Kantarci, Full professor, IEEE Fellow, Canada Research Chair on AI-Enabled Next-Generation Wireless Networks.

M.Eng in Electrical Engineering, Tianjin University, China Sep.2016 – Dec.2018
Supervisor: Prof. Shaoyun Ge. GPA: 4.0 / 4.0

B.Eng. in Electrical Engineering and Automation, Huazhong University of Science and Technology, China
GPA: 4.0 / 4.0 Sep.2012 – Jun.2016

AWARDS & SCHOLARSHIPS

Best Doctoral Thesis Award in Faculty of Engineering, University of Ottawa (*1st position among all PhD graduates of the engineering faculty in 2023*) May. 2024

Best Journal Paper Award, IEEE ComSoc CSIM Technical Committee Nov. 2023

Best Paper Award, COMMUNICATION SOFTWARE & MULTIMEDIA Track, IEEE International Conference on Communications (ICC) (*one of 16 selected papers from 2778 submissions*) May. 2023

Outstanding Self-financed Abroad Chinese Students Award (6000 USD $), China Scholarship Council Jul. 2023

International Doctoral Scholarship, University of Ottawa 2019 – 2023

International Doctoral Admission Scholarship, University of Ottawa 2020 – 2023

Canada NSERC CREATE TOP-SET, Canada NSERC 2019 – 2023

Second Prize Graduate Student Scholarship, Tianjin University Oct.2017 and Oct.2018

Outstanding Graduate Award, Huazhong University of Science and Technology May.2016

Outstanding Student Leader Award, Huazhong University of Science and Technology Oct.2014 and Sep.2015

PROJECT EXPERIENCE

Large Language Model-driven Efficient and Flexible NextG Cellular Network Management
with Samsung Research American, Standards and Mobility Innovation Laboratory Apr.2025 – Mar.2026
Group Leader (Mentored 4 PhD and 1 Master students) :

- **Crafted the project proposal** and secured **$150K Samsung Global Research Outreach grant** (Highly competitive funding with **only 11 projects selected globally** for the year 2024-2025).
- Led **end-to-end project design and execution** with a 5-member team (4 PhD and 1 Master student) to integrate LLMs (GPT-4, Llama 3) into 5G-Advanced network optimization.
- **Defined project milestones, allocated resources, and mitigated risks** (e.g., data privacy compliance), ensuring on-time delivery of all objectives.
- **Developed a TeleLLM model** by integrating LLMs (e.g., GPT-4, Llama 3) with **retrieval-augmented generation (RAG)** and knowledge graph, **improving 40% accuracy** compared with existing techniques.
- Designed a novel **LLM deployment technique at network edge and cloud**, **reducing 10% lower overall latency** for generation services from mobile user.
- Developed **2 novel LLM prompting techniques for network optimization and prediction tasks**, achieving comparable performance as conventional ML models **in a training-free manner**.

AI-enabled Performance Enhancement for the Reconfigurable Multi-Player RAN
MITACS Accelerate Program with Ericsson Canada May.2020 – Aug.2023
Group Leader:

- **Mentored 3 PhD and 1 Master students** in this project as the group leader of the university side, **publishing 10+ papers** at flagship conferences (IEEE ICC/ Globecom). **Growing team members' technical and professional skills** through **weekly skill-building meetings, personalized development plans, and collaborative problem-solving**.
- **Bridged industry-academia** collaboration and **filed 6 US patents with Ericsson Canada** in AI-driven network optimization (energy efficiency, traffic steering, network slicing and security). Contributed pioneered novel AI architectures to Ericsson's 5G Advanced/6G commercialization roadmap.
- Developed a series of AI-enabled solutions (**Hierarchical reinforcement learning, Federated learning, Split learning**) to intelligently improve network performance, e.g., **joint decision-making with multiple timescales** to reduce 20% power consumption, **secure federated learning for network security** to achieve 15% higher energy efficiency.

Hybrid LLM-DDQN based Joint Optimization of Vehicle-to-Infrastructure (V2I) Communication and Autonomous Driving with York University, Canada Sep.2024–Feb.2025
Group Leader (Defined the project schemes and milestones):

- Developed a novel technique to **integrate LLM and deep reinforcement learning** to explore **the application of LLMs in the decision-making of autonomous driving**.
- The experiment is implemented in *HighwayEnv* environment using GPT and Llama series models, leading to **30% lower collision rate** for autonomous driving.

PROFESSIONAL SERVICES & INVITED TALKS

Invited talks on "**Large Language Models for Next Generation Wireless Networks**", Department of Engineering, King's College London, UK Feb. 2024

Tutorials on "**Generative Foundation Models (GFMs) For NextG Communication Networks: Fundamentals, Key Techniques, and Future Directions**" IEEE International Conference on Communications (ICC), Jun. 2025

Invited talks on "**Optimization Techniques for Reconfigurable Intelligent Surfaces**", AI/ML Working Group — IEEE Future Networks

Invited talks on "**Large Language Models (LLMs) for NextG Wireless Networks**", AI/ML Working Group — IEEE Future Networks, Sep. 2024

Program Committee (PC) member, AI4NextG Workshop, NeurIPS 2025. — Sep. 2025

TPC Member, 2025 IEEE IEEE 102nd Vehicular Technology Conference (VTC) Fall — Oct. 2025

TPC Member, 2025 IEEE International Conference on Communications (ICC) — Oct. 2024

TPC Member, 2024 IEEE International Conference on Communications (ICC) — Oct. 2023

Session Chair, 2022 IEEE Consumer Communications and Networking Conference (CCNC) — Jan.2022

Session Chair, 2021 IEEE International Symposium on PIMRC. — Sep.2021

SELECTED PUBLICATIONS

Topic 1: LLM/GenAI for Edge Intelligence, Telecom Knowledge and Information Understanding

[L12] Y. Lin*, **H. Zhou***, C. Hu, X. Liu, H. Chen, Y. Xin, J. C. Zhang, "**Hierarchical Debate-Based Large Language Model (LLM)** for Complex Task Planning of 6G Network Management," in *International Conference on Machine Learning (ICML) 2025 Workshop on Machine Learning for Wireless Communication and Networks*, Jun. 2025.

[L11] **H. Zhou***, C. Hu*, Dun Yuan, Ye Yuan, Di Wu, Xue Liu, Jianzhong Charlie Zhang, "Prompting Wireless Networks: **Reinforced In-Context Learning** for Power Control," in *International Conference on Machine Learning (ICML) 2025 Workshop on Machine Learning for Wireless Communication and Networks*, Jun. 2025.

[L10] Z. Yan*, **H. Zhou***, J. Pei, H. Tabassum, "**Hierarchical and Collaborative LLM-Based Control** for Multi-UAV Motion and Communication in Integrated Terrestrial and Non-Terrestrial Networks," in *International Conference on Machine Learning (ICML) 2025 Workshop on Machine Learning for Wireless Communication and Networks*, Jun. 2025.

[L09] **H. Zhou**, C. Hu, D. Yuan, Y. Yuan, D. Wu, X. Chen, H. Tabassum, X. Liu, "Large Language Models (LLMs) for Wireless Networks: An Overview from the **Prompt Engineering Perspective**," *IEEE Wireless Communications*, pp.1-10, Jan. 2025.

[L08] **H. Zhou**, C. Hu, D. Yuan, Y. Yuan, D. Wu, X. Liu, Z. Han, and C. Zhang, "Generative AI as a Service in 6G Edge-Cloud: **Generation Task Offloading by In-context Learning**," *IEEE Wireless Communications Letters*, vol.14, no.3, pp.1-5, Mar. 2025.

[L07] **H. Zhou**, C. Hu, Y. Yuan, Y. Cui, Y. Jin, C. Chen, H. Wu, D. Yuan, L. Jiang, D. Wu, X. Liu, C. Zhang, X. Wang, and J. Liu, "**Large Language Model (LLM) for Telecommunications**: A Comprehensive Survey on Principles, Key Techniques, and Opportunities," *IEEE Communications Survey & Tutorials*, pp.1-52, Sep. 2024.

[L06] Z. Yan, **H. Zhou**, H. Tabassum, and X. Liu, "**Hybrid LLM-DDQN based Joint Optimization** of V2I Communication and Autonomous Driving," *IEEE Wireless Communications Letters*, vol. 14, no.1, pp.1-5, Feb 2025.

[L05] D. Yuan, **H. Zhou**, D. Wu, X. Liu, H. Chen, Y. Xin, and C. Zhang, "Enhancing Large Language Models (LLMs) for Telecommunications using **Knowledge Graphs and Retrieval-Augmented Generation**," *2025 IEEE ICC Workshops*, pp.1-6, Mar. 2025.

[L04] C. Hu, **H. Zhou**, D. Wu, X. Chen, J. Yan, and X. Liu, "**Self-Refined Generative Foundation Models** for Wireless Traffic **Prediction**," arXiv:2408.10390, pp.1-5, Aug. 2024. (Submitted to *IEEE Trans. on Vehicular Technology*)

[L03] Y. Emami, **H. Zhou**, S. Nabavirazani, and L. Almeida, "**LLM-Enabled In-Context Learning** for Data Collection Scheduling in UAV-assisted Sensor Networks," *IEEE Internet of Things Journal* (Accepted), pp.1-14, Sep. 2025.

[L02] Kai. Hu, Y. Jin, **H. Zhou**, L. Du, J. Liu, and X. Liu, "**Generative AI for Immersive Video**: Recent Advances and Future Opportunities," in Proc. 2025 International Joint Conference on Artificial Intelligence (IJCAI), pp.1-9.

[L01] Y. Yuan, H. Wu, **H. Zhou**, X. Liu, H. Chen, Y. Xin, and C. Zhang, "Understanding 6G through Language Models: A Case Study on LLM-aided Structured Entity Extraction in Telecom Domain", Accepted to 2025 IEEE GLOBECOM Conference.

Topic 2: Hierarchical Learning for Network Optimization & Energy Efficiency & Open-RAN

[H07] **H. Zhou**, M. Elsayed, M. Bavand, R. Gaigalas, S. Furr, and M. Erol-Kantarci, "**Cooperative Hierarchical Deep Reinforcement Learning** based Joint Sleep, Power, and RIS Control for Energy-Efficient RAN," *IEEE Trans. on Cognitive Communications and Networking*, vol. 11, no.1, pp.489-504, Feb. 2025.

[H06] **H. Zhou**, M. Erol-Kantarci, Y. Liu, and H. V. Poor, "Heuristic Algorithms for RIS-assisted Wireless Networks: Exploring **Heuristic-aided Machine Learning**," *IEEE Wireless Communications*, vol.3, no.4, pp.1-9, Aug. 2024.

[H05] **H. Zhou**, L. Kong, M. Elsayed, M. Bavand, R. Gaigalas, et. al, "**Hierarchical Reinforcement Learning** for RIS-Assisted Energy-Efficient RAN," *in Proc. 2022 IEEE GLOBECOM*, Dec. 2022, pp.1-6.

[H04] M. A. Habib, **H. Zhou**, PE. Iturria-Rivera, M. Elsayed, M. Bavand, R. Gaigalas, Y. Ozcan, and M. Erol-Kantarci, "Machine Learning-enabled Traffic Steering in O-RAN: A Case Study on **Hierarchical Learning Approach**," *IEEE Communications Magazine*, vol.63, no.1, pp. 100-107, Jan. 2025.

[H03] M. A. Habib, **H. Zhou**, PE. Iturria-Rivera, M. Elsayed, M. Bavand, R. Gaigalas, Y. Ozcan, and M. Erol-Kantarci, "**Hierarchical Reinforcement Learning** Based Traffic Steering in Multi-RAT 5G Deployments," *in Proc. 2023 IEEE ICC*, May. 2022, pp.1-6. *2023 IEEE ICC Best Paper Award*.

[H02] M. A. Habib, **H. Zhou**, PE. Iturria-Rivera, M. Elsayed, M. Bavand, R. Gaigalas, Y. Ozcan, and M. Erol-Kantarci, "**Intent-driven Intelligent Control** and Orchestration in O-RAN via Hierarchical Reinforcement Learning," *in Proc. 2023 IEEE MASS*, Sep. 2023. pp.1-7.

[H01] H. Zhang, W. Wang, **H. Zhou**, Z. Lu, and Ming. Li, "A Hierarchical DRL Approach for Resource Optimization in Multi-RIS Multi-Operator Networks," *IEEE Trans. on Wireless Communications*, pp.1-13, Feb. 2025.

Topic 3: Transfer Learning for Network Optimization & Machine Learning Security

[T06] **H. Zhou**, M. Erol-Kantarci, and H. V. Poor, "**Knowledge Transfer and Reuse**: A Case Study of AI-enabled Resource Management in RAN Slicing," *IEEE Wireless Communications*, vol.30, no.5, pp.1-10, Oct. 2023.

[T05] **H. Zhou**, M. Erol-Kantarci, and H. V. Poor, "Learning from Peers: **Deep Transfer Reinforcement Learning** for Joint Radio and Cache Resource Allocation in 5G Network Slicing," *IEEE Trans. on Cognitive Communications and Networking*, vol.8, no.4, pp.1925-1941, Dec.2022. *IEEE ComSoc CSIM TC Best Journal Paper Award*

[T04] **H. Zhou**, and M. Erol-Kantarci, "**Knowledge Transfer** based Radio and Computation Resource Allocation for 5G RAN Slicing," *in Proc. 2022 IEEE CCNC*, Jan. 2022, pp.1-6.

[T03] S. Salhi, **H. Zhou**, M. Elsayed, M. Bavand, R. Gaigalas, and M. Erol-Kantarci, "Smart Jamming **Attack and Mitigation on Deep Transfer Reinforcement Learning** Enabled Resource Allocation for Network Slicing," *IEEE Trans. on Machine Learning in Communications and Networking*, vol. 2, pp. 1492-1508, Sep. 2024.

[T02] S. Salhi, **H. Zhou**, M. Elsayed, M. Bavand, R. Gaigalas, and M. Erol-Kantarci, "**Policy Poisoning Attacks on Transfer Learning** enabled Resource Allocation for Network Slicing," *in Proc. 2023 IEEE GLOBECOM*, Dec. 2022, pp.1-6.

[T01] S. Salhi, **H. Zhou**, M. Elsayed, M. Bavand, R. Gaigalas, and M. Erol-Kantarci, "Jamming Attacks and Mitigation in **Transfer Learning Enabled 5G RAN Slicing**," *in Proc. 2024 IEEE ICC*, Jun. 2024, pp. 4269-4274.

Topic 4: Multi-agent Reinforcement Learning and GenAI for Smart Energy Trading

[E10] **H. Zhou**, A. Aral, I. Brandic, and M. Erol-Kantarci, "Multi-agent Bayesian Deep Reinforcement Learning for Microgrid Energy Management under Communication Failures," *IEEE Internet of Things Journal*, vol.9, no.14, pp.11685-11698, Jul. 2022.

[E09] **H. Zhou**, and M. Erol-Kantarci, "Decentralized Microgrid Energy Management: A Multi-agent Correlated Q-learning Approach," *in Proc. 2020 IEEE SmartGridComm*, Nov. 2020, pp.1-7.

[E08] **H. Zhou**, and M. Erol-Kantarci, "Correlated Deep Q-learning based Microgrid Energy Management," *Proc. IEEE 25th Int. Workshop CAMAD*, Sep. 2020, pp.1-6.

[E07] M. Razghandi, **H. Zhou**, M. Erol-Kantarci, and D. Turgut, "Variational Autoencoder Generative Adversarial Network for Synthetic Data Generation in Smart Home," *in Proc. 2022 IEEE ICC*, Jan. 2022, pp.1-6.

[E06] M. Razghandi, **H. Zhou**, M. Erol-Kantarci, and D. Turgut, "Smart Home Energy Management: VAE-GAN synthetic dataset generator and Q-learning," *IEEE Trans. on Smart Grid*, vo.15, no.2, pp.1562-1573, May 2024.

[E05] M. Razghandi, **H. Zhou**, M. Erol-Kantarci, and D. Turgut, "Smart Home Energy Management: Sequence-to-Sequence Load Forecasting and Q-Learning," *in Proc. 2021 IEEE GLOBECOM*, Dec. 2021, pp.1-6.

[E04] M. Razghandi, **H. Zhou**, M. Erol-Kantarci, and D. Turgut, "Short-Term Load Forecasting for Smart Home Appliances With Sequence to Sequence Learning," *in Proc. 2021 IEEE ICC*, Jun. 2021, pp.1-6.

[E03] J. Zhang, **H. Zhou**, C. Liu, et al. "Highway Charging Station Plan Based on Dynamic Traffic Flow Simulation," *in Proc. 2018 Int. Conf. on Energy, Environment, Bio. Sciences*, Mar. 2018, pp.1-6.

[E02] J. Zhang, **H. Zhou**, et al., "Multi-objective Planning of Charging Stations Considering Vehicle Arrival Hot Map," *in Proc. 2017 IEEE EI2*, Nov. 2017, pp.1-6.

[E01] S. Ge, J. Li, H. Liu, X. Liu, Y. Wang, and **H. Zhou**, "Domestic Energy Consumption Modeling per Physical Characteristics and Behavioral Factors," *in Proc. 2018 ICAE*, Aug. 2018, pp.1-6.

Topic 5: Federated Learning for Network Security, On-device Intelligence

[F05] H. Zhang, **H. Zhou**, M. Elsayed, M. Bavand, R. Gaigalas, Y. Ozcan, and M. Erol-Kantarci, "**On-Device Intelligence** for 5G RAN: Knowledge Transfer and Federated Learning enabled UE-Centric Traffic Steering," *IEEE Trans. on Cognitive Communications and Networking*, vol.10, no.2, pp. 689-705, Apr. 2023.

[F04] H. Zhang, **H. Zhou**, M. Elsayed, M. Bavand, R. Gaigalas, Y. Ozcan, and M. Erol-Kantarci, "**Distributed Attacks over Federated Reinforcement Learning**-enabled Cell Sleep Control," *in Proc. 2023 IEEE GLOBECOM Workshop*, Dec. 2022, pp.1-6.

[F03] H. Zhang, **H. Zhou**, and M. Erol-Kantarci, "**Federated Deep Reinforcement Learning** for Resource Allocation in O-RAN Slicing," *in Proc. 2022 IEEE GLOBECOM*, Dec. 2022, pp.1-6.

[F02] H, Zhang, **H. Zhou**, M. Erol-Kantarci, "**Team Learning-Based** Resource Allocation for Open Radio Access Network (O-RAN)," *in Proc. 2022 IEEE ICC*, Jan. 2022, pp.1-6.

[F01] PE. Iturria-Rivera, H. Zhang, **H. Zhou**, S. Mollahasani, and M. Erol-Kantarci, "**Multi-Agent Team Learning** in Virtualized Open Radio Access Networks (O-RAN)," *Sensors*, vol.22, no.14, pp.1-13, Jul. 2022.

Topic 6: Reinforcement Learning for Resource Allocation, Sensing, and Localization

[R08] **H. Zhou**, M. Erol-Kantarci, Y. Liu, and H. V. Poor, "A Survey on **Model-based, Heuristic, and Machine Learning Optimization Approaches** in RIS-aided Wireless Networks," *IEEE Communications Survey & Tutorials*, vol.26, no.2, pp.781-823, 2nd quarter, 2024.

[R07] **H. Zhou**, M. Elsayed, and M. Erol-Kantarci, "RAN Resource Slicing in 5G Using **Multi-Agent Correlated Q-Learning**," *in Proc. 2021 IEEE PIMRC*, Sep. 2021, pp.1-6.

[R06] M. A. Habib, **H. Zhou**, PE. Iturria-Rivera, M. Elsayed, M. Bavand, R. Gaigalas, S. Furr, and M. Erol-Kantarci, "Traffic Steering for 5G Multi-RAT Deployments using **Deep Reinforcement Learning**," *in Proc. 2022 IEEE CCNC*, Jan. 2023, pp. 1-6.

[R05] Z. Yan, **Hao Zhou**, J. Pei, A. Kaushik, H. Tabassum, P. Wang, "CVaR-Based Variational Quantum Optimization for User Association in Handoff-Aware Vehicular Networks," Accepted by *2025 IEEE ICC*, Jan. 2025, pp. 1-6.

[R04] Y. Yao, **H. Zhou**, M. Erol-Kantarci, "Joint Sensing and Communications using **Deep Reinforcement Learning-based Beam Management** in 6G Networks," *in Proc. 2022 IEEE GLOBECOM*, Dec. 2022, pp.1-6.

[R03] Y. Yao, **H. Zhou**, et. al., "Deep Reinforcement Learning-Based Radio Resource Allocation and Beam Management **Under Location Uncertainty** in 5G mmWave Networks," *in Proc. 2022 IEEE ISCC*, Jul. 2022, pp.1-6.

[R02] Y. Dantas, PE. Iturria-Rivera, **H. Zhou**, M. Elsayed, M. Bavand, R. Gaigalas, and M. Erol-Kantarci, "**Split Learning** for Sensing-Aided Single and Multi-Level Beam Selection in Multi-Vendor RAN," *in Proc. 2023 IEEE GLOBECOM*, Dec. 2022, pp.1-6.

[R01] Y. Dantas, PE. Iturria-Rivera, **H. Zhou**, M. Elsayed, M. Bavand, R. Gaigalas, and M. Erol-Kantarci, "Beam Selection for Energy-Efficient mmWave Network Using **Advantage Actor Critic Learning**," *in Proc. 2023 IEEE ICC*, May. 2022, pp.1-6.

PATENTS

[P01] H. Zhou, Melike Erol-Kantarci, M. Elsayed, M. Bavand, et. al., "System and Method for **Intelligent Joint Sleep, Power and RIS Control**", US provisional patent filed on 11 August 2022, US patent filed on 11 August 2023.

[P02] H. Zhou, L. Kong, Melike Erol-Kantarci, et. al, "System and Method for RIS-Assisted Energy-Efficient RAN Using **Hierarchical Reinforcement Learning**", US provisional patent filed on 07 May 2022, US patent filed on 06 May 2023

[P03] H. Zhang, **H. Zhou**, M. Erol-Kantarci, et. al, "Attacks and Defense in **Federated Reinforcement Learning**-based Wireless Networks, US provisional patent filed on 5 May 2023, US patent filed on 05 May 2024.

[P04] H. Zhang, **H. Zhou**, M. Erol-Kantarci, M. Elsayed, et. al, "User Equipment (UE)-centric Traffic Steering for Wireless Communications", US provisional patent filed on 18 April 2023, US patent filed on 17 April 2024.

[P05] A. Habib, **H. Zhou**, P. E. Iturria Rivera, M. Erol-Kantarci, et. al, "System and Method for **Intelligent Traffic Steering** in RAT", US provisional patent filed on 10 November 2022, PCT patent filed on 11 November 2023.

[P06] Y. Dandas, P. E. Iturria Rivera, **H. Zhou**, M. Erol-Kantarci, et. al, "**Split Learning** for Sensing-Aided Beam Selection", US provisional patent filed on 29 April 2023, US patent filed on 29 April 2024.

TRAINING AND TEACHING EXPERIENCE

Virtual Could RAN Intern, Ericsson, Canada — Jan.2023 – Apr.2023

Research Assistant, NETCORE Lab, University of Ottawa, Canada — Sep.2019-Aug.2023

Teaching Assistant, School of Electrical and Computer engineering, University of Ottawa:

ELG3155: Introduction to Control Systems — ELG3316: Electric Machines and Power Systems

ELG4126: Sustainable Electrical Power Systems — ELG4152: Modern Control Systems

ELG4157: Modern Control Engineering — ELG4139: Electronics — Sep.2020-Dec.2022