Ehsan Ghoreishi

Virginia Tech, Blacksburg, VA, U.S.

✉ ehsangh@vt.edu   in LinkedIn   🎓 Google Scholar

EDUCATION

Virginia Tech — **Blacksburg, VA, U.S.**
Ph.D. in Computer Engineering, Total GPA: 3.80/4 — 2024-present

Virginia Tech — **Blacksburg, VA, U.S.**
M.Sc. in Computer Engineering, Total GPA: 3.77/4 — 2024

Isfahan University of Technology — **Isfahan, Iran**
B.Sc. in Electrical Engineering, Total GPA: 3.72/4 — 2021

RESEARCH EXPERIENCE

Real-Time GPU Acceleration for URLLC/eMBB Multiplexing — 2022-present
Complex Network & Security Research, Virginia Tech

Deep Reinforcement Learning Solution for URLLC/eMBB Multiplexing — 2022-2024
Complex Network & Security Research, Virginia Tech

Complex-Valued Neural Network for Wireless Modulation Classification — 2020-2021
Isfahan University of Technology Signal Processing Research Center

Designed and Analyzed Nonlinear Effects in Remote Wire Monitoring. — 2020-2021
Isfahan University of Technology Optic Research Center

Calculation of Heat Distribution of Double Brillouin Pulse in Water — 2021
Isfahan University of Technology

WORK EXPERIENCES

Graduate Research Assistant, CNSR Lab, Virginia Tech, Blacksburg, VA

Graduate Teaching Assistant, Bradley Dept. of Electrical and Computer Engineering, Virginia Tech, Blacksburg, VA

Research Assistant, Electrical and Computer Department, Isfahan University of Technology, Isfahan, Iran.

Research Assistant, Optical and Signal Processing Research Center, Isfahan University of Technology, Isfahan, Iran.

PUBLICATIONS

Papers

Ehsan Ghoreishi, Bahman Abolhassani, Yan Huang, Shiva Acharya, Wenjing Lou, Y. Thomas Hou "Cyrus: A DRL-based Puncturing Solution to URLLC/eMBB Multiplexing in O-RAN." in 2024 33rd International Conference on Computer Communications and Networks (*ICCCN*), 2024, pp. 1–9. (Invited Paper)

Ehsan Ghoreishi, Bahman Abolhassani, Yan Huang, Shiva Acharya, Wenjing Lou, Y. Thomas Hou "Cyrus+: A Real-Time DRL-based Puncturing Solution to URLLC/eMBB Multiplexing in O-RAN.", (Submitted to *IEEE Transactions on Machine Learning in Communications and Networking*)

Ehsan Ghoreishi, Shiva Acharya, Wenjing Lou, Y. Thomas Hou "Enhancing 5G Efficiency: How Machine Learning is Revolutionizing eMBB and URLLC Puncturing.", (To be submitted to *IEEE Wireless Communications*)

Poster..

Ehsan Ghoreishi, Bahman Abolhassani, Yan Huang, Shiva Acharya, Wenjing Lou, Y. Thomas Hou "Cyrus: A DRL-based Puncturing Solution to URLLC/eMBB Multiplexing in O-RAN." Office of Naval Research (ONR) MURI Meeting, 2024.

AWARDS AND ACHIEVEMENTS

CCI SWVA Cyber Innovation Scholar 2025
Recipient, Commonwealth Cyber Initiative – SWVA

Nationwide University Entrance Exam – Mathematical Physics 2017
Ranked 90th among 200,000 participants nationwide

Ranked 15th in cumulative GPA in ECE Department of Isfahan University of Technology 2020
Among 185 Electrical Engineering students

TEACHING EXPERIENCE

The Graduate Teaching Assistant in Introduction to Computer Networking 2022
Bradley Dept. of Electrical and Computer Engineering, Virginia Tech

The Teaching Assistant in Principles of Electronics 2021
Electrical and Computer Engineering Dept., Isfahan University of Technology

The Teaching Assistant in Electric Circuits II 2021
Electrical and Computer Engineering Dept., Isfahan University of Technology

Course Instructor in MATLAB 2022
Electrical and Computer Engineering Dept., Isfahan University of Technology

SKILLS

Programming: Python, MATLAB, C/C++, Assembly

Experienced with numerical and simulation tools: TensorFlow, TF-Agents, PyTorch, MATLAB, Anaconda, CST, Maxwell, MATLAB Simulink

PROFESSIONAL MEMBERSHIPS

Institute of Electrical and Electronics Engineers (IEEE) 2022-present
IEEE Communications Society (ComSoc) 2022-present

RESEARCH INTERESTS

Machine Learning

Reinforcement Learning

Real-Time Systems

Optimization

Wireless Networks