Mostafa Naseri

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Experience

Princeton University

Visiting Researcher in Prof. H. Vincent Poor's Lab

Princeton, USA

Project: Learning-Based Compressed Image Transmission in Noisy Environments

University of Malaga

Visiting Researcher in Prof. Cristian Martín Fernández's ERTIS Research group

Malaga, Spain

- Project: Early Exit Models for Interference Cancellation

Ghent University

Doctoral in Computer Science, IDLab

Ghent, Belgium

- Projects:
 - Learning-Based Image Compression
 - Multimodal LLMs
 - Model Compression for Edge

- Blind Source Separation
- Reinforcement Learning
- Generalization in New Environments

Beijing University of Posts and Telecommunications

Research Assistant in Prof. Norman C. Beaulieu group

Project: Statistical Analysis, Wireless channel modeling

Beijing, China

NOKIA

Network Planning and Optimization (NPO) Engineer

Tehran, Iran

NAK Telecom Managed Services

Quality Assurance (QA) Engineer

Tehran, Iran

University of Tehran

Research Assistant

Tehran, Iran

- Project: Resource allocation for Non-Orthogonal Multiple Access (NOMA)

Skills

Programming Python, C/C++, MATLAB, Verilog

Machine Learning CNN, Transformers, Reinforcement Learning, Model Compression, Transfer Learning

Machine Vision Image Generation, Image Compression Tools & Frameworks PyTorch, TF, Git, K8s, W&B, Azure

Information Theory Entropy Coding, Data Compression
 Signal Processing Source Separation, Time-Freq. Analysis
 Wireless Comm. UWB, AoA Estimation, Beamforming, NOMA
 Soft Skills Grant Writing, Research & Development, Team Collaboration, Problem Solving

Awards and Honors

Graduate/Research Assistantship & Tuition

Awarding Body: University of Illinois at Chicago

Date: 2021 **Amount**: \$48,743

Theme: Research Assistantship.

- FI DGR Grant for Predoctoral Research Staff Recruitment

Awarding Body: Regional Government of Catalonia

Date: 2021

Amount: €23,774.97

Theme: Funded predoctoral grants for the recruitment of new Research Staff.

- BGS Scholarship for Outstanding Academic Performance

Awarding Body: Beijing University of Posts and Telecommunications

Date: 2018

Amount: RMB 40,000 (approximately €5,200)

Theme: Academic achievement during MSc studies.

- MIT RF Challenge - Data-Driven Signal Separation in Radio Spectrum

Awarding Body: ICASSP 2024

Date: 2024

Amount: Recognition only

Theme: Signal processing and deep learning techniques for RF interference separation.

Publications

Under Review

- M. Naseri, P. Ashtari, M. Seif, E. De Poorter, H. V. Poor, A. Shahid, "Learning-Based Image Compression for Wireless Communications: Effects on Reliability, Throughput, and Latency," *IEEE Journal on Selected Areas in Communications*.
- M. Naseri, E. De Poorter, I. Moerman, H. V. Poor, A. Shahid, "High-Throughput Blind Co-Channel Interference Cancellation for Edge Devices Using Depthwise Separable Convolutions, Quantization, and Pruning," under revision in IEEE Open Journal of the Communications Society.

Published (selected)

- M. Naseri, A. Shahid, E. De Poorter, "Adapting UWB AoA Estimation Towards Unseen Environments Using Transfer Learning and Data Augmentation," *Internet of Things*, vol. 27, 101298, 2024.
- **M. Naseri**, E. De Poorter, I. Moerman, H. V. Poor, A. Shahid, "Blind Co-Channel Interference Cancellation Using Fast Fourier Convolutions," in *Proc. IEEE 99th Vehicular Technology Conference (VTC2024-Spring)*, pp. 1-2, 2024.
- M. Naseri, J. Fontaine, I. Moerman, E. De Poorter, A. Shahid, "A U-Net Architecture for Time-Frequency Interference Signal Separation of RF Waveforms," in *Proc. IEEE Int. Conf. Acoust., Speech, Signal Process. (ICASSP)*, 2024.
- H. Navidan, **M. Naseri**, I. Moerman, A. Shahid, "Radio Resource Management for Intelligent Neutral Host (INH) in Multi-Operator Environments," *IEEE Open Journal of the Communications Society*, 2024.
- M. Naseri, A. Shahid, G. J. Gordebeke, S. Lemey, M. Boes, S. Van de Velde, E. De Poorter, I. Moerman, "Machine Learning-Based Angle of Arrival Estimation for Ultra-Wideband Radios," *IEEE Communications Letters*, vol. 26, no. 6, pp. 1273-1277, 2022.

Education

Ghent University

Ph.D. in Computer Science

Ghent, Belgium

Beijing University of Posts and Telecommunications

Master of Science in Electronics and Communication Engineering

Beijing, China

- Thesis: Physical Modeling of Wireless Fading Channels (GPA: 90/100), Supervisor: Norman C. Beaulieu
- Projects:
 - Application of probability theory in wireless communication systems
 - Performance analysis of diversity combining techniques for correlated fading channels

Shiraz University of Technology

Bachelor of Science in Electrical Engineering, Communications

Shiraz, Iran

- GPA: 17.16/20 (3.6/4)

Academic and Community Service

Reviewer: IEEE Communications Magazine, IEEE Transactions on Wireless Communications, IEEE Wireless Communications Letters, ICASSP.

Personal Interests

- Hobbies: Climbing, volleyball, hiking.
- Lived in 5 countries, embracing diverse cultures and experiences across different environments.

References

Eli De Poorter
 Professor at Ghent University
 eli.depoorter@ugent.be

H. Vincent Poor
 Professor at Princeton University

poor@princeton.eduIngrid MoermanProfessor at Ghent UniversityIngrid.Moerman@UGent.be