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 — *Beijing, China*
- Project: Statistical Analysis, Wireless channel modeling

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, Weights & Biases
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

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.

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.

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.edu`
- **Ingrid Moerman**
  Professor at Ghent University
  `Ingrid.Moerman@UGent.be`