

Morteza Shoushtari

☎ (408) 752-1087 | @ shoushtari.morteza@live.com | 🔗 LinkedIn | 📁 Portfolio | 📍 San Jose, CA | ★ Green Card Holder

PROFESSIONAL SUMMARY

As a System Engineer at Supermicro Inc., I specialize in AI/HPC network infrastructure and possess comprehensive expertise in wired, wireless, and cellular network technologies. Holding a Ph.D. in Electrical and Computer Engineering with a focus on the PHY layer of wireless communication, I am dedicated to continuous learning and exploration of innovative technologies.

SKILLS

Wired/Wireless Network Architecture, Infrastructure, and Protocols | Cellular Networks Technologies (LTE/5G) | Protocol Stack (PHY, MAC, RLC, PDCP, RRC, SDAP) | TCP/IP and OSI | 802.3 (Ethernet), 802.11 (WiFi), 802.15 (Bluetooth, Zigbee) | IP Networking | IPv4 and IPv6 | FLSM and VLSM | L2 Switching (VLAN, STP, LACP) | L3 Routing (EIGRP, OSPF, BGP, MPLS) | Server Operating System (Windows, Linux) | Virtualization Technologies | Network Troubleshooting Analysis (Wireshark) | Cloud Computing (AWS) | Software Defined Networking (SDN) | Process Automation | Infrastructure Cabling | Data Center Infrastructure | Network Security (NAT, ACL, SSL, TLS) | Cryptographic Algorithms (AES, DES, RSA) | Post-Quantum Cryptosystems | Error-Correction Coding (LDPC, Polar, Turbo, Viterbi) | Physical Layer Security

Programming Languages: C++, MATLAB

Certificates: Supermicro GPU Service Associate/Specialist/Expert (SGSA, SGSS, SGSE), CCNA, HCNA, MCITP, Network+, A+

WORK EXPERIENCE

Supermicro Inc.

System Engineer

CA, USA

May 2024 – Present

- Working on AI/HPC network infrastructure and data centers.

Brigham Young University

Graduate Research Assistant

Utah, USA

Jan 2019 – July 2023

- Discovered new properties of secrecy coding from the perspectives of information and coding theory.
- Devised a high-speed algorithm to construct the optimal code in Nested Linear Secrecy Codes, enhancing code identification and selection efficiency.
- Conducted a detailed assessment and visualized secrecy problems such as eavesdropping in aeronautical mobile telemetry communication and suggested the use of secrecy coding and specialized version of post-quantum cryptosystems for this type of communication systems.

HUAWEI

Network Engineer

Tehran, Iran

Aug 2016 – Aug 2017

- Designed and implemented wired/wireless networks, and performed network maintenance and system upgrades.
- Maximized network performance and increased network availability by 99.99% by implementing a redundant network architecture.
- Performed installations and configurations, and support of various network devices such as switches (Huawei, Cisco), wireless access points (Huawei, Aruba), cameras, and video conferencing systems.

JYAN

Network Engineer

Tehran, Iran

Jan 2016 – Aug 2016

- Managed wired communication networks, and performed network maintenance and system upgrades.
- Monitor performance and ensure system availability and reliability.
- Performed installations and configurations of various network devices such as switches (Cisco), wireless access points (Aruba), cameras, and video conferencing systems.

- Performed installations and configurations of HP servers, virtual machines (VMs), and Cisco switches.
- Administered SaaS and PaaS layers of the company's cloud platforms (Citrix, IIRAS).
- Managed and configured Microsoft application servers CRM, SharePoint, and Lync.

EDUCATION

Brigham Young University

Ph.D. in Electrical and Computer Engineering; GPA: 3.78/4.00

UT, USA

Jan 2019 – July 2023

Shiraz University

M.Sc. in Information Technology;

Fars, Iran

2011 – 2013

SELECTED PUBLICATION

- “Optimizing Finite Blocklength Nested Linear Codes: Using the Worst Code to Find the Best Code”, Entropy Journal, MDPI, 2023.
- “Towards Practical Physical-Layer Security: Channel Measurements and Pedestrian Traffic”, under review IEEE Transactions on Information Theory, 2023.
- “Classification of Coset Codes for Wiretap Channels”, under review IEEE Transactions on Information Theory, 2023.
- “From Privacy Protection to Analyzing Users’ Behavior: The Crucial Role of Information Theory in the Metaverse”, IEEE Inter-mountain Engineering, Technology, and Computing Conference, 2023.
- “Secrecy Coding for the Binary Symmetric Wiretap Channel via Linear Programming”, under review IEEE Transactions on Information Forensics and Security, 2023.
- “A Comparative Study of Waveforms Across Mobile Cellular Generations: From 0G to 5G and Beyond”, under review IEEE Access, 2023.
- “Post-Quantum Cryptography Based on Codes: A Game Changer for Secrecy in Aeronautical Mobile Telemetry”, in Proc. of the International Telemetry Conference (ITC), Las Vegas, NV, US, Oct. 2022.
- “Secrecy coding in the Integrated Network Enhanced Telemetry (iNET)”, in Proc. of the International Telemetry Conference (ITC), Las Vegas, NV, US, Oct. 2021.
- “New Dual Relationships for Error-Correcting Wiretap Codes”, in Proc. of IEEE Inform-ation Theory Workshop (ITW), Kanazawa, Japan, Oct. 2021.
- “On Caching with Finite Blocklength Coding for Secrecy over the Binary Erasure Wiretap Channel”, in Proc. of IEEE Wireless Telecommunications Symposium (WTS), San Francisco, US, Apr. 2021.

AWARDS & ACHIEVEMENTS

- Third place award, IEEE Intermountain Engineering, Technology, and Computing Conference (IEEE i-ETC), 2023.
- Best paper award, International Telemetry Conference, 2022.
- Second best graduate student paper award, International Telemetry Conference, 2021.
- Outstanding IT engineer in Huawei Technologies Company, 2017.

REFERENCES

Available upon request.