Morteza Shoushtari

(408) 752-1087 | @ shoushtari.morteza@live.com | LinkedIn | Portfolio | San Jose, CA | ★ US Permanent Resident

PROFESSIONAL SUMMARY

As a System Engineer at Supermicro, I specialize in AI and HPC network/datacenter infrastructure, with deep expertise in wired, wireless, and cellular networking technologies. I hold a Ph.D. in Computer and Electrical Engineering, with a research focus on the network and secrecy/error-correction coding. Passionate about working with great teams and always learning in fast-moving technical environments.

SKILLS

Wired/Wireless/Data Center Network Architecture, Infrastructure, and Protocols | Cellular Networks Technologies (LTE/5G) | Protocol Stack (PHY, MAC, RLC, PDCP, RRC, SDAP) | InfiniBand, 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 | 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: Phyton, C++, MATLAB

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

WORK EXPERIENCE

Super Micro Computer, Inc. — CA, USA
System Engineer — *May 2024 – Present*

- Develop scripts for network configuration and verification to streamline deployment processes, ensure consistency across systems, and improve operational efficiency.
- Provided technical leadership and strategic guidance on AI and HPC network infrastructure, worked in big projects such as xAI, Tesla, Meta, Intel, Gulf Business Machines, and Iron Mountain.
- Collaborated with cross-functional teams to review network designs and functional specifications, ensuring compatibility, scalability, and high availability across all infrastructure components.

Brigham Young University — Utah, USA
Graduate Research Assistant — *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 — Tehran, Iran
Network Engineer — *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   Tehran, Iran
Network Engineer   *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.

Persia Cloud   Tehran, Iran
Network Engineer   *Jun 2015 − Jan 2016*

- 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   UT, USA
Ph.D. in Electrical and Computer Engineering; ***GPA: 3.78/4.00***   *Jan 2019 − July 2023*

Shiraz University   Fars, Iran
M.Sc. in Information Technology; ***GPA: 3.78/4.00***   *2011 − 2013*

SELECTED PUBLICATION

- "Secrecy Coding for the Binary Symmetric Wiretap Channel via Linear Programming", IEEE Transactions on Information Forensics and Security, 2025.
- "Optimizing Finite Blocklength Nested Linear Codes: Using the Worst Code to Find the Best Code", Entropy Journal, 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.
- "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

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

REFERENCES

Available upon request.