

Nima chaharbaghi

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Education

Master of Science in Telecommunications Engineering <i>UNIVERSITY OF BOLOGNA (UNIBO)</i>  CGPA:28.6/30	2024 – present BOLOGNA, ITALY
Bachelor of Science in Electrical Engineering <i>ISFAHAN UNIVERSITY OF TECHNOLOGY (IUT)</i> 	2019 – 2023 ESFAHAN, IRAN

Interests

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|---------------------|-------------------|--------------------|
| • Machine Learning | • Computer Vision | • Image Processing |
| • Signal Processing | • Networks | • 5G |

Projects

Secure Video Transmission System Using H.264 and AES Encryption • Designed a system to receive and decode transport stream data transmitted in H.264 format. • Applied Advanced Encryption Standard (AES) to secure video streams, preventing unauthorized access. • Implemented decryption for both AES and H.264 encoded data to ensure smooth video playback. • Analyzed data flow, encryption, and decryption processes to optimize security and performance.	2024
Fast and Accurate Human Detection with HOG • Successfully applied HOG feature descriptor for human detection, showcasing expertise in computer vision techniques. • Optimized the algorithm for efficient processing and accurate detection of human figures in various scenarios. • Demonstrated strong problem-solving skills by overcoming challenges in feature extraction and classification to achieve reliable results.	2024
Real-Time Hand Gesture Recognition Using mmWave Radar (Final Year Project) • Designed and implemented signal processing algorithms to extract gesture features. • Utilized machine learning techniques to classify and interpret hand gestures accurately. • Integrated the system with user interfaces for practical applications.	2023
Implementing Effects of AWGN on Constellation, Constant Complex Channel Gain, and Multipath Channel using MATLAB • Utilizing Gray code for constellation point mapping to enhance error resilience. • Generating random binary sequences and mapping them to complex constellations. • Evaluating signal power and noise power for different Signal-to-Noise Ratios (SNR). • Applying complex Gaussian noise to simulate real-world channel conditions. • Investigating the impact of constant complex channel gain on signal constellations.	2023
OpenStack Local Development in Virtualbox • Successfully set up Virtualbox, Ubuntu Server VM, and utilized DevStack for OpenStack installation. • Developed Python scripts to effectively interact with the OpenStack cloud, showcasing proficiency in virtualization, system configuration, and cloud resource management.	2022

WORK EXPERIENCE

Technical Staff, UniBoat in the UniBoat project, I contributed to developing and connecting the boat's systems to the internet for real-time communication. Key accomplishments include: <ul style="list-style-type: none">• Configured reliable internet connectivity for the boat, ensuring stable communication across various environments.• Established a web socket on the server to facilitate seamless packet transmission to connected devices.• Enhanced system integration for data sharing, supporting real-time monitoring and improved operational efficiency.	2024/10 – present Bologna, Italy
Isfahan university of technology IT center Internship Experience: Network Manager <ul style="list-style-type: none">• earned the Linux LPIC1 certification, enhancing my Linux administration skills and open-source technology expertise.• achieved the CCNA (Cisco Certified Network Associate) certification, validating my networking knowledge and troubleshooting abilities.• became proficient in OpenStack, contributing to cloud computing and virtualization projects, which improved resource allocation efficiency.	2022/07 – 2022/09 ESFAHAN, Iran

VOLUNTARY ACTIVITIES

Head Staff, Robo_IUT As the Head Staff of Robo_IUT, I provided dynamic leadership for three years in a renowned robotic competition. During my tenure: <ul style="list-style-type: none">• Successfully managed and coordinated multiple robotic competitions, fostering innovation and teamwork among participants.• Implemented strategic improvements, resulting in increased participation and engagement in the event.• Demonstrated strong organizational and leadership skills by overseeing event logistics, sponsorship, and budget management.	2021 – 2023
Board member of student scientific association of electrical engineering Faculty of Electrical and Computer Engineering, Isfahan University of technology	2021/09 – 2022/10

LANGUAGES

English
IELTS (04/Sep/2023): Overall 6.5 (L7 R6.5 W6 S6.5)
TRF Number: 23IR002496CHAN026A

Persian
[Native]

French
[Basic]

Skills

Matlab	Python
C++	LaTeX
FPGA (vhdl)	Opencv
5G	Computer networks