Hosein Kangavar Nazari

kangavar.nazari@iasbs.ac.ir (Academic),   hknstudy@gmail.com (Personal)

Researchgate, Github, Linkedin, Personal Website

Education

MSc in Computer Science, Institute for Advanced Studies in Basic Sciences (IASBS), Zanjan, Iran *(*September 2018 - September 2021)

> **GPA:** 19.94/20, total 37 credits completed, Rank (1/14)

> **Thesis title:** Partial Packet Recovery for Network Coding

> **Supervisor:** Dr. Peyman Pahlevani

BSc in Information Technology Engineering, Institute for Advanced Studies in Basic Sciences (IASBS), Zanjan, Iran *(*September 2014 - September 2018)

> **GPA:** 18.76/20, total 210 credits completed, Rank (1/44)

> **Supervisor:** Dr. Peyman Pahlevani

Research Interest

Internet of Things, Distributed Systems, Wireless Communications

Publications

Title: **Improving the Decoding Speed of Packet Recovery in Network Coding**

> **Journal:** IEEE Communications Letters

> **Authors:** _Hosein K. Nazari_, K Ghassabi, P Pahlevani, DE Lucani

Title: **Packet Recovery for Random Linear Codes Using Algebraic Relation of Linearly Dependent Packets**

> The manuscript has been **submitted** for review.

> **Authors:** _Hosein K. Nazari_, P Pahlevani

Teaching Experience

I have assisted as a **teaching assistant** in the following courses:

Graduate Courses

Coding Theory (Fall academic term 2019-2020), Advanced Computer Networks (Winter academic term 2019-2020), Distributed Systems (Spring academic term 2020) instructed by Dr. Peyman Pahlevani

Undergraduate Courses

Network Lab. (Fall academic term 2019), Computer Networks (Spring, fall, and winter academic terms 2018-2019), Operating Systems (Fall academic term 2018), Instructed by Dr. Peyman Pahlevani

Algorithm Design (Spring academic term 2017), Data Structure (Fall and winter academic terms 2017), Instructed by Dr. Mansoor Davoodi Monfared

Duties: Conducting weekly review, lab, or tutorial session, evaluating projects

Research Experience

- **Research Assistant and Software Developer at Sarve Saba Company** (2020 -2022)

  Topic: Developing IoT systems for online controlling and monitoring system of air conditioning systems.

  Key responsibilities: Developing an IoT system with Node js framework to control actuators, capture and analyze the sensor data, and provide real-time reports. Identifying, evaluating, and addressing security threats.

- **Wireless Communication Laboratory Research Intern** (2018 - 2021)

  Topic: Developing an application for monitoring and controlling the Heating, Ventilation, and Air Conditioning (HVAC) system for reducing electric power usage.

  Key responsibilities: Developing a server for monitoring and controlling the HVAC system; designing a web interface/dashboard for graphical data representation and reporting.

- **IoT Laboratory Research Intern** (2015 -2018)

  Topic: Developing different applications such as a web-based video chat using WebRTC technology for online classrooms.

  Key responsibilities: Back-end software developer and Scrum master.

Awards

- Ranked 1st and selected as the Exceptionally Talented Student in the undergraduate program, 2018.
- Winning 2nd place in FinTech startups competition, Science and Technology Park, Zanjan, Winter 2016.
- A member of IASBS IoT team, achieving top teams title in "IoT Cup," at Iran University of Science and Technology, Tehran, Summer 2015.

Volunteer Experience

- Computer Science department representative at the research week firm in Zanjan, Fall 2016 - 2018.

  Duties: Presenting latest software/products developed in the Computer Science department

- University represener at 5th exhibition of ELECOMP fair, presenting an IoT-based system for online classrooms, Fall 2017, Zanjan.

  Duties: Organizer and Presenter

Skills

- **Language proficiency**

  Persian (Native), Azari (Native), English (Proficient)

- **Programming Language**

  C++, Python, Javascript

- **Familiar with**

  Linux (Ubuntu & Kali), Git, Scrum, web development programming (Nodejs, React, HTML, CSS, ...), SQL and No-SQL databases, Kodo and FiFi Simulators, NS3 Simulator, Wireshark, Project management tools e.g., Scrum and Kanban, UX and UI design (Photoshop, Illustrator), LaTeX

- **Soft skills**

  Effective teamwork and time management skills