

ZAHRA REZAEI

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Google Scholar: My Google Scholar Profile

EDUCATION

M.Sc. in Computer Network Engineering | University of Isfahan, Iran

2018-2022

- Thesis title: Network data analysis for efficient management of micro base stations' On/Off switching in Ultra-Dense networks
- Grade: Cumulative GPA: 18.41/20.0 (4.0/4.0)

B.Sc. in Information Technology Engineering | University of Isfahan, Iran

2014-2018

- Thesis title: IoT-Based Smart Library System
- Grade: Cumulative GPA: 17.57/20.0 (3.67/4.0)

WORK EXPERIENCES

Web Developer (WordPress):

2024-present

Freelance

Developed a range of custom WordPress websites for both personal and business projects. My work spans portfolio sites, digital menu systems for cafés and restaurants, and fully customized e-commerce stores. I focus on theme-less development, advanced customization, and high-performance solutions tailored specifically to each client's needs.

- Built theme-less WordPress websites using Elementor Pro and JetEngine, enhanced with custom PHP, HTML, and CSS for scalable and flexible solutions.
- Combined UI design principles with mobile-first responsive development to create usable, consistent, and engaging experiences across all devices.
- Developed advanced WooCommerce e-commerce websites, including a cosmetics store and an industrial water tank shop, featuring well-structured product categories, detailed product pages, and dynamic filtering systems.
- Designed personal branding and portfolio websites for graduates and professionals to effectively showcase their CVs, skills, and professional achievements.
- Designed and built digital menu solutions for cafés and restaurants, featuring QR code integration and mobile-first access.
- Implemented on-page and technical SEO using Rank Math, alongside off-page SEO strategies to enhance website visibility and rankings.

Research Assistant:

2020-2023

University of Isfahan

- Conducted research on energy- and spectrum-efficient network optimization using deep reinforcement learning.
- Developed and simulated the proposed approach in Python and TensorFlow, and implemented alternative methods from other studies for comparative analysis.
- Collected, analyzed, and interpreted simulation data to validate models and support research findings.
- Contributed to the publication of the article: *"Energy and spectrum efficient cell switch-off with channel and power allocation in ultra-dense networks: A deep reinforcement learning approach"*.

IoT-Based Smart Library System:

05/2018-09/2018

University of Isfahan

- Designed and implemented a smart library system enabling users to borrow and return books automatically without staff assistance using RFID/NFC technology.
- Integrated RFID/NFC tags and readers with a Raspberry Pi 2 Model B to automate book tracking and authentication at library entry and exit gates.
- Developed server-side applications using Node.js, managing communication between the web platform, Android app, and IoT devices.
- Created a web interface and Android application for users to view and manage borrowed books, improving library efficiency and user experience.

Intern – Android Development:

06/2017-09/2017

Morvarid payampardaz

- Learned Android development, focusing on UI design and activity lifecycle.
- Contributed to developing an application that encrypts and decrypts various types of data.
- Gained experience using AsyncTask for background operations.
- Became familiar with AESCrypt and Crypto Cipher libraries for implementing encryption algorithms.

LANGUAGES AND SKILLS

Languages:

- English (Upper-Intermediate)
- Persian (Native)

Skills:

- Web Development: WordPress, HTML, HTML5, CSS, JavaScript, Responsive design, UI/UX fundamentals, SEO
- Programming: Python (TensorFlow, data analysis), Java, MySQL, Git/GitHub, Raspberry Pi, RESTful APIs, JSON
- Software & Office Tools: Microsoft Office (Word, Excel, PowerPoint), Documentation
- Professional Skills: Analytical thinking, Problem-solving, Team collaboration

PUBLICATIONS

Journal Papers:

- Zahra Rezaei, Behrouz Shahgholi Ghahfarokhi, " Energy and spectrum efficient cell switch-off with channel and power allocation in ultra-dense networks: A deep reinforcement learning approach," *Computer Networks*, 2023, DOI: <https://doi.org/10.1016/j.comnet.2023.109912>

AWARDS AND HONORS

- Granted exemption from the National Ph.D. Entrance Exam under the Exceptional Talents Admission Program, offered to the top 3 M.Sc. students with the highest GPAs 2022
- Ranked 1st among Computer Engineering master students with a major in Computer Networks Engineering at the University of Isfahan. 2022
- Honored as an "Exceptional Talent" and awarded a fellowship by the University of Isfahan for the M.S. program. 2018

VOLUNTEERING

Member of the Executive Committee

The 9th International Conference on Internet of Things and Its Applications