

ZAHRA MANSOURI

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RESEARCH INTERSETS

- Automated and empirical software engineering, requirement engineering, and software quality assurance.
- Program analysis, refactoring, and testing.
- Machine learning and data science.

SKILLS & ABILITIES

Programming and Markup Languages

- Java, Python, C / C++, and Bash Scripting
- XML, HTML, CSS, JSON, DOM, and AJAX.

Frameworks

- Django, Spring Boot.

Libraries and IDEs

- Data science: Scikit-learn, Pandas, Numpy, NetworkX, and SciPy
- Image processing: OpenCV, Pillow, and Torchvision
- Visualization: Seaborn, Graphviz, and Matplotlib
- Program analysis: ANTLR, and Understand
- Databases: MySQL, Microsoft SQL-Server, and Postgres
- Dependency and code management tools: Pip, Maven, and Git
- IDEs: PyCharm, IntelliJ IDEA, Eclipse, and Netbeans.

Software Development Methodologies and Modeling

- Methodologies: Agile (BDD and TDD)
- Modeling languages: UML
- Project management: Scrum.

Operating Systems, Virtualization, and Office

- OSs: Microsoft Windows and Linux (Ubuntu desktop/server, Centos)
- Virtualization: VMware Workstation
- Presentation software: Microsoft Office and LATEX

Languages

- Persian: Native
- English: Good

EXPERIENCE

- Feb. 2020-Oct. 2020 Software Engineer, Houshmand *Sazegan*
- Electronic payment system design includes Database schema design, Class diagram design and initial system implementation with Django framework.
- Sep. 2021-Dec. 2021 Software Engineer, Pinno
- Backend programmer with Java, Spring boot framework.
- Jul. 2022-Nov. 2022 Software Engineer
- Data scientist, Generate a collection of unique primitive humans' avatar (NFTs).
- Sep. 2020-Dec. 2020 Teacher Assistant, Al-Zahra University
- Computer Network, Dr. Masoud Sagharhian.
- Jan. 2019-Jun. 2019 Teacher Assistant, Al-Zahra University
- Advanced Programming(Java), Dr. Mehran Sharghi.
- Feb. 2022-Jun. 2022 Teacher Assistant, Iran University of Science and Technology
- Fundamental of Compiler Design, Dr. Saeed Parsa.
- Sep. 2022-Now Teacher Assistant, Iran University of Science and Technology
- Data Mining, Dr. Hosien Rahmani.

EDUCATION

- Sep. 2017-Sep. 2021 Al-Zahra University, *B.Sc. in Computer Engineering, 17.87*
- Oct. 2021-Now Iran University of Science and Technology, *M.Sc. in Computer Engineering, 18.50*

HONORS & AWARDS

Finalist, The 8th National Conference on World Environment Day: Design and construction of smart watering system of a pot using clay sensor and micro controller (2014).

ACADEMIC PROJECT HIGHLIGHTS

- Library Management System: with Java and Spring Boot framework - to implement a micro service web application using MVC architecture and REST API communication among all modules.
- Socket Programming: with Java - Implementation of transport layer protocols (UDP, TCP) in a client-server architecture.
- Kernel System Call: with C - Implementation of a system call with C, added it to Linux kernel and compiling it.
- Maze: with C++ - Implemented kruskal, dfs, prim and subdivision algorithms for traversal.
- SNA: with Python - Basic introduction to the concepts of social network analysis based on the concepts of graph theory.
- Image processing: with Python - Feature extraction to classify pictures.
- Text Processing: with Python - Implemented a text processor for IMDB movies which extracts them and applies Text-Rank algorithm.
- Web Crawler: with python - Implemented a crawler for Digikala page to fetch information about special offers.
- Cyber Attack Diagnosis: with Python - Detecting network attacks in computer networks by using data Mining methods.