Mina (Azam) Mahdipour - Software Engineer

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PROFESSIONAL SUMMARY

- Master of Applied Science in Computing and Software, seeking a 4–12-month co-op opportunity starting Fall 2024.
- Highly experienced in software development, design, programming, and testing, acquired through diverse projects in academic studies and 2+ years of work experience as a software developer.
- Proficient in multiple programming languages including Python and Java through extensive work experience.
- Proven expertise in SDLC tools and platforms like Jenkins, Kubernetes, Docker, Git, Spring Boot, and testing tools such as JUnit and Pytest, acquired through multiple projects and research experiences.
- Demonstrated communication, presentation, and problem-solving skills cultivated through multiple teaching assistant positions and research assistantships.

SKILLS

- **Programming and Development:** Java, Python, JSON, SQL, Maven, Spring Boot, Junit, Pytest, RESTful APIs, Object-oriented concepts, Application Programming Interface (API).
- **DevOps and Infrastructure:** Git, GitHub, Docker, Kubernetes, Jenkins, CI/CD, Helm, Terraform, Ansible, DevOps on Amazon Web Services (AWS), Linux-based OS.
- **Databases and Data Visualization:** MySQL, Neo4j, Power BI, Tableau.
- **Project Management:** Jira, Confluence, Kanban board, Agile methodologies.

EDUCATION

Master of Applied Science in Computing and Software [GPA: 3.9/4]

McMaster University, Hamilton, ON.   Jan 2022 – Expected by Dec 2024
- Relevant Courses: Software Design, Development of Scientific Computing Software, and Micro-Services Oriented Architecture.

Master of Science in Computer Network Engineering [GPA: 3.9/4]

Islamic Azad University Central Tehran Branch, Tehran.   Sep 2013- Feb 2021
- Relevant Courses: Advanced Operating Systems, Advanced Software Engineering, and Database Management.

Bachelor of Science in Software Engineering

University of Tehran, Tehran.   Sep 2007- Sep 2012
- Relevant Courses: Software Engineering, Operating Systems, Data Structures, and Computer Algorithms.

RELEVANT WORK EXPERIENCE

Software Research Assistant

McMaster University & Cubic Transportation Systems, Hamilton, ON.   Mar - Nov 2023
- Automated consistent aggregation of heterogeneous data to improve software performance troubleshooting, by developing a unified data store using Java, Neo4j, GitHub, Docker, Docker Compose, Power BI, and Spring Boot.
- Introduced 4 new Key Performance Indicators (KPIs) for monitoring to improve performance, expanding the existing set of 24 KPIs, following a thorough review of 38 research papers on software monitoring KPIs.
- Successfully improved performance issue triaging process by implementing an SST framework, and mentoring a team of four through task delegation, code reviews, and daily debugging meetings.

Software Developer

Kish Modern Informatics Services Corporation, Tehran.   Sep 2012 - Aug 2013
- Collaborated with the design team on requirement analysis and system design for the Terminal Operating System (TOS) software of Shahid Rajaee Transit Port.
- Efficiently automated manual processes for import/export and cargo handling by implementing TOS software at Shahid Rajaee Transit Port using Linux, Tomcat, Java, JUnit, Hibernate, Object-relational mapping (ORM), Spring, MySQL, and SVN as part of a team of 10 expert software developers.

GRADUATE RESEARCH and PROJECTS

Supporting Software Maintenance in Heterogeneous Contexts,

McMaster University, Hamilton, ON.   May 2024 - Present

- Effectively improved change impact analysis and performance troubleshooting processes leveraging a unified data store along with technologies such as Java, Neo4j, Git, Docker, Tableau, Power BI, Gephi and Spring Boot, resulting in a conference poster.

Workout Application with Microservice Architecture

McMaster University, Hamilton, ON.   Jan 2024- May 2024

- Designed and implemented a microservice architecture for a workout application using GitHub, Spring, Java, Docker, Spring Boot, maven, Jenkins and RabbitMQ, showcasing my skills in microservice architecture design, development, and documentation.

Domain-Specific Language for Web Development

McMaster University, Hamilton, ON.   Jan 2023- May 2023

- Successfully automated the conversion of shorthand HTML abbreviations to structured code by developing a domain-specific language (DSL) for web development using Java, Eclipse, and LaTeX as part of a team of 4.

Inverted Pendulum Simulation System

McMaster University, Hamilton, ON   Jan 2023- May 2023

- Designed and developed an inverted pendulum simulation system using GitLab, GitHub, Python, and Pytest, enhancing proficiency in software development principles for reliable scientific applications and improving teamwork and communication skills through peer reviews.

OTHER WORK EXPERIENCE

Information Technology Security Engineer

Mellat Bank, Tehran.   May 2019 - Nov 2022

- Managed a team of five in maintaining DHCP, DNS, and Active Directory services, achieving 99.9% uptime.
- Led the deployment and integration of Active Directory service across 15 departments and 5 subsidiaries for over 2K+ users, achieving a 25% time savings through several coordination meetings and weekly management reports.
- Significantly improved security levels by updating 35 IT security policy documents, conducting several meetings with 20 departments and subsidiaries to gather their requirements, and addressing implementation challenges while supervising a team of five.
- Proactively addressed potential security issues by evaluating the alignment of design documents for new IT services and projects with customized Protection Profiles (PP) and investigated security concerns through multiple meetings with 20+ technical teams.

Information Technology Research and Development Engineer

HamiTech Co, Tehran.   Sep 2013 - May 2019

- Deployed and configured Linux-based infrastructure services (DNS, DHCP, NTP, and TACACS+) across 20 provinces, ensuring seamless network operations and enhanced security measures.
- Significantly improved network resilience by contributing to the hardening and security configurations of 1,000+ routers and switches, following their best practices, within a team of 10 network engineers.
- Automated certificate management processes (certificate request, validation, and lifecycle management) by developing a registration authority (RA) for the certificate authority service utilizing Java, Junit, maven, CentOS and Tomcat.