Payam Davoudi

Fullstack Developer | Software Engineer

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PROFESSIONAL SUMMARY

Dynamic and results-oriented Software Engineer with a proven track record of developing high-quality software solutions to tackle complex challenges in the industry. I hold two master's degrees: a Master of Computer Science (Co-op) from the University of Ottawa and a Master of Software Engineering from Azad University. I aim to leverage my front-end and back-end programming expertise, collaborative problem-solving skills, and technical innovation to contribute effectively to your team.

SKILLS

Programming: C#, Java, Python, JavaScript, TypeScript, C++, HTML5, CSS3, and Gherkin

Frameworks: ASP.NET MVC, .NET Core, Struts, OSGi, jQuery, Jest, JUnit, Mockito, Express.js, Cucumber, and Bootstrap

Libraries: React, Redux, and Socket.IO

Engineering: Requirements Engineering, Object-Oriented Programming (OOP), Common Design Patterns, Code Review, Responsive Web Design, UX/UI Enhancements, Software Testing, Debugging, Quality Assurance, REST API, TCP/IP, Network, Real-Time Applications, Human-Computer Interaction (HCI), Data Structures and Algorithms, WebSocket, Test-Driven Development (TDD), Domain-Driven Design (DDD), Behavior-Driven Development (BDD), Event-Driven Development (EDD), Microservices, Agile Development and Scrum Methodologies

Databases: Relational Database, SQL, MySQL, Postgres, NoSQL, MongoDB, ORMs such as Hibernate and Entity Framework

DevOps: Docker, Azure, AWS, GCP, Git, IIS, and CI/CD Pipelines (Jenkins, GitHub Actions)

Tools: Node.js, CodeMirror6, Postman, Maven, Jira, VIM, Zephyr Scale, Visual Studio, Eclipse IDE, WebStorm, PyCharm, IntelliJ IDEA, ReSharper, Balsamiq Mockups, and Bootstrap Studio

AI and ML: NLP, ANN, CNN, ACO, GA, LLM, NetLogo, TensorFlow, Chatbots, and Virtual Assistants

OS: Microsoft Windows, Linux, Mac OS, and Raspbian

Soft Skills: Teamwork, Communication, Attention to Detail, Adaptability, Resilience, Working Independently, Problem-Solving, Time Management, Mentorship, Continual and Fast Learning, Stress Management, Critical Thinking, Decision Making

EXPERIENCE

Ross Video | Full Stack Developer Sep 2022 – Aug 2023
- Developed and **enhanced core features** of a live production platform using **JavaScript, TypeScript, jQuery, React, HTML, CSS,** and a **Java-based back end**.
- Integrated **front-end with REST API** and **microservices**, ensuring seamless data retrieval to improve platform performance and scalability.
- **Enhanced system performance by 20%** through code optimization, ensuring seamless operation during high-volume live broadcasts.
- Implemented **test-driven development** with over **90% coverage** using **JUnit** while evaluating system components.
- Collaborated closely with the **product verification team** to develop **manual** and **automated** testing using **Zephyr Scale, Gherkin,** and **Cucumber**.
- **Assisted in implementing CI/CD pipelines** for the Inception application and utilized tools like **Jenkins** to improve deployment speed.
- Conducted detailed **code reviews** for a team of **over 10 developers**, maintaining **high-quality standards** and best practices, enhancing team **productivity by 25%**.
- **Collaborated in an Agile team environment** by participating in **sprint planning**, time estimation for tasks, and attending **daily stand-ups** to deliver features aligned with **business goals**.

University of Ottawa | Junior Data Analyst and Communications Specialist (Co-op work) May 2022 – Aug 2022
- Developed a **web application** using **ASP.NET Core** and **C#** to assist the MEDSAO team in monitoring statistics and extracting valuable information from clients' data.
- **Automated** and streamlined **data extraction from Excel and PDF files**, ensuring data sanitization and secure storage in databases.

- Utilized **Python, Pandas, Matplotlib**, and other libraries to extract information from raw data and **plot various charts and graphs** for comparison with previous years' data.
- Improved **software quality** by minimizing post-release defects through unit testing.

Tamas Gostar Kish (TGK) | Software Engineer and Researcher   Jan 2011 – May 2017
- **Developed various application**s for **smart home control** to monitor and track multiple **sensors and actuators** in **real time** and manage the lighting and temperature in smart buildings.
- **Researched IoT devices** and their energy consumption in smart homes.
- **Enhanced the company's website** and ensured all systems operated smoothly and communicated securely.

Self-Employed | Full Stack Developer   Jan 2011 – May 2021
- Developed various applications and **responsive websites** using a range of languages and frameworks, including **ASP.NET MVC, C#, Python, Java, Bootstrap, HTML5, CSS3**, and more, to assist clients in achieving their goals.
- **Developed applications** to process and analyze real-time data, presenting it in a **user-friendly** way.
- Enhanced **website performance** and **SEO** for clients by **reducing loading times** and achieving 99% availability.
- Managed updates under **strict deadlines**, including content modifications and feature development.
- Developed **user-friendly control panels** for users with **limited computer skills**.
- **Collaborated closely with clients** to define and develop business requirements for their applications.

University of Ottawa | Graduate Teaching Assistant / Corrector   Jan 2022 – May 2024
- Mentored students in principles of software engineering, artificial intelligence, databases, object-oriented programming, and data structures.
- Evaluated assignments, quizzes, exams, and projects while providing constructive feedback to students.
- Assisted students with their coursework and assignments, addressed their concerns and provided guidance.

PROJECTS

Umple, Open Source Project
- Researched and **implemented Collaborative Editing** using WebSocket leveraging **Socket.IO**, **Express**, and **TypeScript**, enabling over **1.5 million users** to edit models in Umpleonline, fostering teamwork and productivity.
- **Migrated Umpleonline to Codemirror6**, resulting in improved performance, a modular modern architecture, and richer features such as autocompletion, linting, and collaborative editing, which future-proof the application.

Automated System for Greenhouse Management
- Designed and developed a **real-time greenhouse control system** utilizing **C#, Python, and MATLAB's Fuzzy Logic tools**.
- **Collected and processed live data** from various analog and digital sensors, efficiently managing a greenhouse in **real-time using a REST API** and multiple Raspberry Pi devices as the controlling nodes.

Other Projects
- Created a **cross-platform online shopping application** using **ASP.NET Core** for the back end and **Flutter** for the front end, ensuring smooth compatibility across multiple devices.
- Developed a **virtual assistant** and chatbot that utilizes **natural language processing**, **voice recognition** tools, and artificial intelligence to answer **movie-related questions**.
- Implemented an application to determine the **shortest path through a maze** using **Python and ACO**.
- Developed an application for **handwriting recognition** that employs **artificial intelligence** and **machine learning** techniques, using **TensorFlow** for model development and training.

EDUCATION

Master of Computer Science (Co-op)	University of Ottawa, Canada	3.84/4.0	Sep 2021- Dec 2024
Master of Software Engineering	Azad University, Tehran	3.52/4.0	Sep 2014 - Jan 2018
Bachelor of Software Engineering	Parsa Higher Education Institute, Mazandaran	3.01/4.0	Sep 2007 - Jan 2010
Associate of Software Engineering	University of Science and Applied Technology, Tehran	3.33/4.0	Nov 2004 - Jul 2007

If you require further information, please do not hesitate to reach out to me at Davoudi.Payam@Gmail.com
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