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Mohammad Seifanvari

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Full-stack software engineer, who has been traveling and upskilling the past year. With particular interest in automation and building data processing infrastructure and analytical software.

Technologies and Languages

- Languages: Java, C#, Python, JavaScript, TypeScript, C++, SQL, HTML, CSS
- Technologies: Git, .NET, Node.JS, React, MySQL, Visual Studio, Linux
- Skills: Software Design, Cloud Computing, Algorithms, Data Structures, Databases

Relevant Work Experience

Software Engineer

APK Solutions

Jun 2021 - Sep 2021

- Collaborated with cross-functional teams under an agile development methodology, TDD and CI/CD to design and implement transformation and cloud migration solutions using C# and .NET.
- Facilitated code reviews and optimisation efforts by utilizing caching methods and efficient algorithms and data structures, resulting in a 25% improvement in loading times.
- Identified problems in the back-end data structures and took the initiative to create a data object template that was adopted by all 30 engineers.
- Improved the front-end UI reactivity and usability by incorporating human-computer interaction standards and client feedback, using JavaScript and HTML, resulting in a 15% decrease in issue reports.
- Implemented automated functional and integration testing using NUnit, resulting in a 50% faster deployment process and a far more reliable production environment.
- Authored technical documentation on the implementation and testing of solutions.

Programmer

OTW

Sep 2021 - Sep 2022

- Revised and optimised the codebase and database systems by utilising connection pooling methods and efficient querying and algorithms, resulting in a 20% decrease in the overhead.
- Automated the conversion and migration process for legacy database systems using Java, resulting in a 50% decrease in content managers' workload.
- Identified and resolved technical issues, collaborating with a cross-functional team, resulting in a 30% reduction in website downtime.

Education

Computer Science BSc

King's College London

2020 – 2023

1st Class Honours

- Modules: Software Architecture, Concurrency, Optimization methods, Database systems, AI
- Facilitated the re-launch of the KCL tech society after the pandemic.
- Team leader for multiple group programming and design projects.

A-Levels

Bellerbys College

2018 – 2020

A*AAA

- Mathematics, Further Mathematics, Computer Science, Physics

Projects

VR Photorealistic 3D Reconstruction of the Moon

JavaScript, HTML, CSS, WebGL, WebXR

- Researched, designed, and developed a web-based 3D Reconstruction of the Moon with VR capabilities.
- Implemented computer vision technics such as Stereo vision and normal maps to optimise and enhance the quality of the reconstruction.
- Ensured usability and accessibility across mobile and desktop platforms, and VR and non-VR capable browsers by utilising web graphics and VR APIs.

Route Optimization Neural Network

Python, PyTorch, DGL

- Researched, designed, and developed a graph neural network specialising in creating and solving Traveling Salesmen routing problems.
- Automated the data conversion from JSON to DGL graph structure, and utilised convolutional aggregation methods to build a graph neural network.

Analytical Dashboard for Video Game

C#, Python, JavaScript, Express.JS, RabbitMQ

- Created a website hosting multiple utility tools for a popular video game, coordinating with a voluntary team.
- Implemented a RESTFUL approach for communication between the different tools and the front-end.
- Developed a polyglot solution to gather and analyse data, and then create and showcase probability distribution models based on specific user data.

16-bit Programmable Computer with an Arduino

C++

- Built a fully operational 16-bit computer from the ground up with a multiplex display and programmable memory.
- Developed an EPROM programmer on an Arduino capable of running simple C++ code on the 16-bit machine.

Django Media Library

Python, Django, Figma

- Designed and developed a media library, creating templates and forms for uploading and managing content.
- Created wireframes and mock-ups for the UI design using Figma to ensure seamless integration of the different views and forms of the application.

Additional Experiences and Certifications

- **ICDL Certification:** Proficiency with MS Office Suite, Windows, and other relevant digital skills.
- **NCS Volunteering Event Coordinator:** Directed a charity for the homeless collaborating with the local church. All funds were raised internally by organizing a charity sale.
- **Programming Tutor:** Tutored a group of students and provided guidance for their participation in the Astro Pi programming challenge.

Other Skills and Interests

- Languages: Fluent in English and Persian.
- I am skilled with both Piano and Guitar and enjoy playing solo and with a band.
- I am an avid hiker and enjoy reading fantasy and historical fiction.