

Mahdi Rastegari

.Net Developer | AI Enthusiastic

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Guildford, United Kingdom

+44 74 92989893

mahdirastegari71@gmail.com

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About Me

I'm a senior .Net developer with high skills in math, algorithm and machine learning. I am skilled in problem-solving and resource optimization, and also parallelization in both CPU and GPU. I've been part of several web-based and windows based applications, all of which have extensive connections with AI and external hardware. I've managed the software side of CellNama (Slide Scanner System), which is installed in multiple pathology labs with an excellent satisfaction ratio.

I am eager to study and learn new technologies in software and artificial intelligence including ASP.NET Core, .Net MAUI, Xamarin and ML.Net in no particular order. I love exploring new technologies and experimenting with them.

What I'm Doing



Desktop Development

Developing desktop applications using

WPF, .Net MAUI and QT C++ for 7 years.



Web Development

Developing website with ASP.Net Core and Blazor for 3 years.



Mobile Apps

Developing Android/IOS application using Xamarin for 3 years.



Artificial Intelligence

Research and Usage AI algorithms or Deep Learning models in enterprise application

Resume



Education

University of Tehran M.Sc. in Electrical Engineering

2015-2018

▲ Certificate **▲** Transcripts

Represent a huristic solution by optimize the beam-alginment problem in anglog beamforming which eventually led to publish two articles.

Isfahan University of Technology **B.Sc.** in Computer Engineering

2013-2017

★ Certificate **★** Transcripts

Desing and implement digital oscilloscope by take advantabge of ARM microprocessor for android OS

Isfahan University of Technology **B.Sc. in Electrical Engineering**

2011-2015

Reduction of patient motion artifacts in Digital Subtraction Angiography (DSA) using image processing and image registration tools

Experience

Software and Algorithm Developer

Basemap

The major responsibility is to develop new features and optimize the current algorithms in TRACC related products. Task and technologies can grouped into followings:

Developing a road network analysis software known as TRACC

ASP.Net Core

- Desktop frontend is WPF and the web frontend is Blazor which both connected to ASP.Net core
 - Work with importing-exporting GIS files like GTFS, TXC, and ShapeFile in efficient way • Work with GIS 3rd party library like ArcGIS, ThinkGeo • Use Test Driven Development to implement the code
 - Use git + azure as the core of our DevOps, and also develop custom pipeline as our release pipeline • Desing and implementing an algorithm for GIS routing
 - Optimize the performance of previous algorithms by using Hash Tree and better use of resources like using DirectX and CUDA for processing arrays.

Azure

AWS

• Developing a website to manage client's licences using ASP.Net Core + Blazor WASM

Blazor

Leading Software Developer CellNama

Algorithm

As the young (but mature enough) software developer had responsibility to implement and lead multiple software to provide

WPF C#

Telepathology. Task and technologies can grouped into followings:

• Implementing an on-the-fly deep learning-based algorithm for cell and nuclei detection during slide scanning.

Parallelism

- Design and implementation of an expandable scanner controller software.
- · Design and implementation of peer-to-peer slide management system capable of Telepathology. • Design and implementation of a powerful and secure desktop WSI viewer and annotator software.
- Design and implementation of real-time "encrypted" WSI read/write system Implementing CUDA-enabled focusing and image pre-processing algorithms

• Design and implement the Mask R-CNN model in TF to detect the tissue region on slide preview

ASP.Net MVC SQL Server CUDA WPF Xamarin C# Angular Tensorflow

Junior Software Developer Dorsa

Participation in a large industrial project in Iran, which had very valuable experiences for me, in general, the work I did included:

• Design and implementation of the near real-time software include watch-dog itself

- Design and implementation workflow to read sensor data (ADAM) as well as images from IP Camera. • Processing the images to detect failure or issues in making steel process by using Edge Detection Technique
- Call external hardware as an emergency alarm when failing detected
- MATLAB USB Protocol WinForm SQL Server IP Camera Image Segmentation and Detecion SVM RS485
- Junior Hardware and Software Developer

Omega-IR

During my undergraduate studies, I worked part-time in the field of electrical and computer hardware, my experiences include:

• Implementation of a servo-motor controller from Smartphone by using ARM microprocessor • Implementation of a USB Audio in ARM and its driver in windows to play high-frequency sound

- Implementation of a controller system, which will be turned off or on when receiving SMS by taking advantabge of PIC micro-controller
- QT C++ ARM PIC AVR USB WinForm



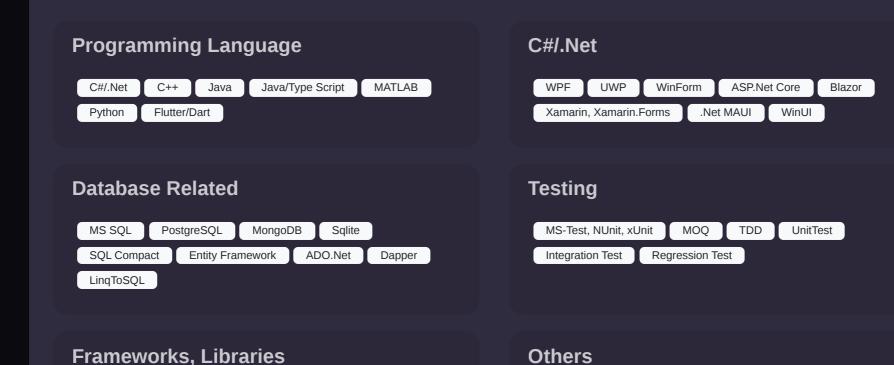
StructureMap, Autofac

Polly

MediatR

MVVM, MVVM Cross, PRISM

AutoMapper, Mapster, Mapperly FluentValidation, FluentAssertaion



ML.Net

DevOps

OOP

Azure

TensofrFlow

Scrum

SVM

GIT

AWS