

Alen Malhasoglu

AlenMalhasoglu@hotmail.com , 0746 645 9862, London SW20,

I am a solution architect, hands on technical team lead, senior developer in full stack Microsoft technologies and open source equivalents. I performed **99 out of 100** questions in IKM (<http://www.ikmnet.com/>) C# 4.0 Test in 2017 and **99 out of 100** in IKM **C# 5.0** test on June 11th 2018. I have been working with microservices architecture projects with **.Net Core** on Azure Cloud solutions. In my personal projects I use Selenium with C# with **AMQP** such as **RabbitMQ, Service Bus, Apache Kafka** and cloud databases such as **Cosmos DB**.

I have been training in financial services related software development subjects; I have completed courses such as Financial Engineering and Computational Investment, Portfolio Optimisation. I have more than **18 years of experience** in object oriented programming languages, service oriented architecture (**SOA**) and **WCF** technologies as well as **event driven architecture**, reactive extensions, and **SOLID principles**.

I worked on high performance, optimized systems in E-Commerce and ECM business areas. I have been involved in optimising the data model, **designing and optimizing the database structure**, refactoring the stored procedures, making sure that maintenance plans are performing correctly, and **refactoring the code** to use caching and **design patterns** to decrease the database round-trips increasing the maintainability thus increasing the application performance and reliability. As a scrum master I also provided test driven development experience to some teams which I worked with, **TDD** and **continuous integration** techniques **increased the code quality** and decreased the manual testing effort.

From delivery point of view I've provided **end-to-end solution delivery** at customer facing roles. My career objective is to provide innovative solutions with delivery excellence and maintaining a passion for technology.

In professional projects I used Azure cloud, but as an opportunity to learn and grow, I used AWS in my personal projects. It has been very easy to scale and distribute the load between different regions. I use **Docker** containers hosted in **Kubernetes** cluster to achieve scalability of microservices backend services.

In my personal projects I use REST based API backend services with microservices architecture deployed using **Docker** containers. I practice latest technologies in my personal projects if I don't have exposure in my professional roles. Such as I have one node **Kubernetes** cluster that I use to deploy my complete infrastructure using Ansible and Terraform and use **Kubernetes** cluster to scale my backend services for my personal projects.

Work Experience

10/2022-04/2023 Solution Architect (Contractor) [International Research Institute], EU, Remote

Completed architecture design, documentation, and implementation of Solution Accelerator (SA) in EU funded Urbanage Project of Horizon 2020 Programme. Created complete design and delivery roadmap of SA. Delivered C4 Component interaction diagrams for Geospatial Information Services layer with Apache Sedona, GeoJSON, GeoServer to serve WMS endpoints consumed by CesiumJS and to visualise Green Comfort Digital Twin Model output in H3 hexagon supported Digital Twin UI for Flanders area of Belgium. I created ontologies for points of interest areas in digital twin models. I worked closely with business analysts and project / programme leads to deliver reusable artefacts according to the schedule. Running Scrum Ceremonies (retrospective, planning, refinement, and daily stand up sessions). Reviewed PRs written in GoLang, Python and YAML and delivered the solution to all environments by engaging different stakeholders. I created interaction diagrams and solution architectures using PUML, Miro Board, and Confluence wiki pages and created user stories and tasks in Atlassian Jira.

Used: Digital Twin, Ontologies, Data Spaces, Python, GoLang, Git, GitLab, Kubernetes, Docker, Grafana, City GML, GeoJSON, Apache Sedona, Apache Kafka, Geospatial Queries, PostgreSQL + PostGIS, KeyCloak SOLID Design Principles, Event Driven Microservices Architecture, PUML, Miro, Jira

06/2021-09/2022 Technical Architect (Contractor) [Workforce Provider for Healthcare], UK, Remote

Audited the client's integration technology capabilities to prepare a report on findings about industry best practices for integration point of view. Checked code quality, security, software component reusability and advised on how to make their integration layer better.

Used: C# .Net Core 3.1, Kubernetes, Istio Service Mesh, Grafana, Azure Service Bus, Azure Cosmos DB, Azure AD B2C, ADO Git SCM, SOLID Design Principles, Event Driven Architecture

04/2021-05/2022 Lead Developer & Scrum Master (Contractor) [An International ECommerce Company], EU, Remote

Created solution architecture and design documents for deliveries, prepared user stories, and ran regular Agile ceremonies for the delivery team. I engaged with technical investment activities to enhance the code quality and maintainability. Documented and demonstrated the added business value to wider audience in the company. Used MS Service Fabric clusters with Apache Kafka messaging infrastructure on Confluence Platform and Google Pub/Sub Messaging on GCP.

Used: C# .Net Core 3.1, ASPNET MVC for API, Azure Cosmos DB, Azure App Fabric Clusters (AppFabric), Azure Alerts, Identity Server 4, Azure DevOps, Git SCM, SOLID Design Principles, Event Driven Architecture, TDD with xUnit, Apache Kafka, Confluent Platform Hosted Kafka Clusters, Google Pub/Sub on GCP

01/2020-03/2021 Senior Developer (Contractor) Supplier Assessment Services Ltd, UK, Hybrid

I have worked in Artio project which is the complete replacement of a legacy system for ConstructionLine.co.uk supply chain management platform.

I have created and improved parts of the Compliance API project which provided supplier goal, standard and requirement level compliance information for the UI frontend. I created RESTful API

microservices which are hosted in **Azure Kubernetes Service (AKS)** and communicating through **Azure Service Bus** with **masstransit library**. **SOLID principles** were used to author the microservices with Scrum based sprint management.

Jira Scrum Boards used in the project for requirements traceability and planning allocation and performance monitoring purposes. Scrum ceremonies have been used to manage the team and I actively collaborated with other team members' either in the same or other work streams.

In order to improve the execution performance, I used **asynchronous programming** method in order to scale the solution without blocking calls for multi-threaded execution.

Test Driven Development (TDD) approach used to develop microservices; in each service, **unit tests** and **integration tests** were written. In order to implement **Behaviour Driven Development (BDD)** approach **Specflow** based functional tests were written. By using functional test approach, manual testing have been minimized, and on every deployment functional tests are run to ensure the business requirements are met consistently.

In my peer review feedback for pull requests I have encouraged to cover important functionality with unit tests and integration tests, as well as encouraging use of OOP best practices such as repository, mediator, factory, and other design patterns as and when necessary.

In order to achieve high performance **database queries**, Entity Framework Core **generated queries** have been **analysed** and **optimized** with **indexes**, in some cases large and complex **EF Core** queries were avoided by executing direct SQL statements with **Dapper**.Net library. For responsive UI high performance search needs, Elasticsearch is used via RESTful API hosted on a microservices.

Kubernetes cluster deployment with Helm 3.1, on AKS service have been monitored with **Geneos (ITRS)** monitoring system.

I used Atlassian tools such as Jira and Confluence are used for team daily activities. For **DevOps**, I have configured Azure Cloud environment and **Azure git repos**, and **Azure pipelines** configured for CI/CD purposes.

Used: C# .Net Core 3.1, ASPNET MVC for API , Azure Sql Server, Azure Kubernetes Service (AKS), Geneos (ITRS), Azure Identity Experience Framework, ,Azure Git SCM, SOLID Design Principles, TDD, BDD with Specflow, Onion architecture with Domain Driven Design with Event Driven Architecture features.

06/2018–12/2019

Team Lead / Senior Developer (Contractor)

Wesleyan Bank

I have worked in www.medentafinance.com project which lets dentists to provide financing options for patients for high value treatments. I have architected microservices design of the solution with domain specific needs, and I have integrated **automated decision making** workflow based on **Experian credit score** data, also integrated **eSignLive** system for e-signature for online contract signing ceremony. With the API integration of the backend banking system, deals flow without any manual intervention to core banking system from the web frontend. With this project bank had a new income stream that's why invested heavily on latest technologies and best practices with scalable **microservices architecture**. Domain model, domain services, application services, API and UI layers designed and integrated with a unique single language, ubiquitous language so that technical team and the business could communicate with the same terminology. The components of the project was **Umbraco CMS v7.11**, **Identity Server v4.0**, and integration to backend **microservices** which provided the credit risk assessment, email services, state machine workflows, logging, queue services and service discovery. Asynchronous communication patterns used to communicate between services using queue infrastructure, so that any communication fault, or transient error could be remediated. Event driven processes triggered in order to make system components independently and in parallel operate and react based on the events happening in the system. The system was built scalability in mind so that number of services could be increased to achieve higher throughput. VMs were created to host application infrastructure on Azure Cloud environment and developer pipelines such as **Azure Boards, Repos, and Pipelines** for CI/CD used for **DevOps** purposes.

Used: C#, ASPNET MVC, Umbraco, Dotnet Core, Identity Server 4, Experian Credit Score integration, EsignLive integration, MS Sql Server, TFS & Git SCM, SOLID Design Principles, TDD, Onion architecture with Domain Driven Design with Event Driven Architecture features.

12/2017 –05/2018

Senior Developer (Contractor)

Blackrock

Major projects to date

I have worked in financial stress testing project for the client which was a global bank. Balance sheet related financial models created in Excel VBA was rewritten and enhanced with C# Excel DNA backend with Sqlite database. After successful delivery of the project, the team created a stress testing framework to facilitate delivery of similar projects in short time and with great visual appeal.

As a second project, I have designed WPF based portfolio management application with SOA in mind and produced a POC for prospective clients. Architecture design documents and interface driven components have been considered in the design of POC and the product have been successfully presented to internal clients.

Used: Excel VBA, Excel DNA Addin, C#, Sqlite, WPF, Prism, MVVM, Telerik UI Controls, MS SQL, Git SCM, SOLID Design Principles, TDD, Finance Domain Knowledge

05/2017 –10/2017

Lead Developer / Scrum Master (Contractor) Vodafone

Major projects to date

I have worked as technical team lead and I performed agile coach role with scrum master responsibilities. I have analysed the bottlenecks of the ALM lifecycle, informed all stakeholders about the potential issues and opportunities of development and performance improvement not only the technology but also team values, and agile culture. Also implemented an integration solution for an upstream system. Supported AngularJS front end ASPNET MVC application with WebApi. The integration endpoint have been designed and architecture documents have been produced in a way that will enable scalability and future flexibility requirements in mind.

Used: AngularJS, C#, ASPNET MVC, RabbitMQ, MS SQL, Git SCM, SOLID Design Principles, TDD, BDD, Powershell, Octopus Deploy, Jenkins Build Server

11/2016 –04/2017

Senior Developer (Contractor)

TFL

Major projects to date

I have worked in DevOps team of Customer Experience department of TFL as senior software developer. In house applications have been improved and refactored with TDD practices with static analysis of the code and unit test coverage improvements are done. Logging related improvements have been particularly useful to parse and feed the log data to centralized logging aggregators.

Used: Powershell, C#, .NET Framework 4.5, MS SQL, Team Foundation Server (TFS), SOLID Design Principles, TDD

03/2015 –09/2016

Senior Developer

Citi Group

Major projects to date

I have worked in Commodities Market Data under Markets and Securities Services Technology.

Working closely with quants and converting their data format for market data format standardization purposes. I was the single developer to deliver the entire quant data type conversion project. I have completed business analysis, development, and testing with agile project management and regular reporting to business. I have provided end to end delivery with detailed and frequent reporting.

Developing and maintaining the internal tools for Commodities Market Data division, which included to develop and maintain WCF and WPF application components. WPF application development with web services interaction both with legacy and new components in order to provide settlements editing functionality for operations department. The operational tools I worked with are leveraged

by limited number of internal users but these tools are mission critical to resolve operational and support issues. Modular Application Development Using Prism Library 5.0 techniques are used to develop support tools in question. The MVVM pattern is used to develop the modules so that Test Driven Development (TDD) practices can be followed.

Code coverage is measured with Open Cover and TeamCity build server is configured to run continuous integration, release and integration tests. Also I have setup Sonar code analysis server for the team to integrate with our CI environment. This provided visualization of the code metrics and easy comparison between projects.

I have delivered scripts and tools for reconciliation between systems from market data perspective. The tools I provided reports to stakeholders any mismatches in data and triggers mechanisms to correct mismatches.

Python scripts were used in order to work with the Commodities Quant Library for pricing and data conversion related activities. Then the code written in Python was converted to main data integration project which was written in C#.

Used: WPF, XAML, C#, .NET Framework 4.5, Oracle DB, IBM UDeploy, TeamCity Continuous Integration, SOLID Design Patterns, SVN and GIT Source Control Systems, TDD, NUnit, Dot Cover, ELK Stack (ElasticSearch, LogStash, Kibana)

11/2013 – 02/2015

Technical Team Leader

Alpari UK Ltd.

Technical team lead of senior developers. Managing intensive business stakeholder expectations, and working closely with project management team to define the scope of agile sprints. Frequent deployments in a day to QA, UAT environments, and controlled scheduled deployments to PROD environment. Provided automated deployment systems to streamline the deployment process. Agile development in line with business expectations. Test Driven Development (TDD), and Behaviour Driven Development (BDD) practices. Assured code quality with code reviews before code inclusion into release, also automated analysis of code coverage and checking code standards using code analysis tools.

Used: .NET Framework 4.5, C# 4.5, ASP.NET MVC, WCF, SOLID Design Patterns, SVN, GIT Source control Systems, Bamboo Continuous Integration, BDD, TDD, Specflow, NUnit, Dot Cover, NCover, AppFabric Cache, MySQL, NHibernate, web sockets with SignalR,

03/2010 – 10/2013

Technical Team Leader / Sr. Developer

Avanade UK Ltd.

UBS – Credit Risk Reporting Team, Technical Team Lead 5 months

I was technical Lead of Credit Risk IT Reports Portal, and Collaboration Solutions. Our team used an agile approach to deliver Reporting Portal which provides easy to search and find, categorize, and share information between departments, with the data segregation concepts kept in mind. Also portal used claims based authentication to provide third party authentication integration, as well as provided an interface to consume information sources to generate automated reports without any

human interaction. The project code was inspected and refactored according to SOLID object-oriented design principles as well as performance enhancements were done. My team leading responsibilities included mentoring junior team members, providing end to end Application Development Lifecycle with proper TDD and Agile methodologies.

Used: .NET Framework 3.5, C# 3.5, MVC, WCF, SOLID Design Patterns, Test Driven Development (TDD), Caching and Performance optimization, Visual Studio, PowerShell

Dutch Shell International – SharePoint 2010 Solutions Architect 8 months

I liaised with various business units to gather detailed requirements with business analysts, set expectations of the customer from the solution being provided, architected 5 projects for Global Functions department in Financial Operations Data (FODData) team. After the architecture completion transferred the knowledge required to off shore team and supervised their work to be sure that everything was on track. Asynchronous programming methods were used to increase the search performance and increase the concurrent users count on the same search page. This was done by optimising the code, and decreasing the data amount that is being sent over the network. To provide component independency and separation of logic for testability, custom actions were used to call WCF services which provided a layered approach for better testability and SOA practice.

Used: C# 3.5, SOA, WCF, MVC, Performance Optimization using Asynchronous Methods, WCF, SOA, Visual Studio, PowerShell

Internal Training

I have researched about Financial Services Industry's development needs. I attended business related courses about Hedge Funds, Computational Investment, Quantitative Development, and Financial Engineering. Additionally I have done research about the industry's technical demands such as **messaging systems, multi-threading, event based architecture** using StreamInsight, and Reactive Extensions. Some of those topics were presented as internal online training to other colleagues.

Novus Leisure – Azure “Cloud” Based Web Site Project 8 months

Nationwide known bar chain wanted to change their website and booking system with scalable and problem-free nature of MS Azure technology, with utilizing CRM Online at the back end. I was responsible for technically leading the website development team which consisted of 5 people. I provided end to end Application Development Lifecycle with proper TDD and Agile methodologies. SOLID principles were used to design and deliver the project components. Some components had to be independent for scalability reasons; these parts of the solution were built using SOA with WCF implementations which provided better flexibility and scalability. Also i have managed the communication with the client by attending business analysis meetings with the design agency. Project was successfully delivered with agile methodology. I have led the Scrum meetings that enabled us to provide an agile approach. Some ETL processes were designed with SSIS packages to feed the reports produced by SSRS. Also SSIS package optimisation was done, and proper logging was added for traceability. Reports which were produced by SqlServer Reporting Services (SSRS) were optimized for best execution time on SqlServer, for this db maintenance tasks were added, and indexes were put to improve performance.

Used: C# 3.5, SOA, WCF, Microsoft Azure, Azure Message Queues, Optimisation of Processing

Messages in the Cloud Message Queues, Dotnetnuke, Visual Studio, PowerShell, Test Driven Development (TDD), SSIS, SSRS

Ingram Micro UK Ltd

6 months

I advised on global B2B site's e-commerce foundation as a senior developer, additionally contributed to the build process with other team members. Service oriented architecture (SOA) was used to design the solution and WCF services were used as well as MSMQ technologies. Using SOA provided the flexibility and separation of concerns for the application and increased the scalability. Queuing and WCF implementations provided a scalable, maintainable, and flexible solution which had Business, Data and Presentation layer separated. The separation of concerns made the solution unit testable and reduced the number of defects in each build cycle. As I was the only commerce server consultant available in the project, I transferred the knowledge to off-shore resources and maintenance tasks carried out with off shore resources. I implemented agile methodology to lead the off-shore maintenance team. Also liaised with business owners in UK and US to address their needs and transfer those requirements to work backlog items in our agile sprints. E-Commerce sales reports were built by SSRS implementation, which used the data aggregated by SSIS packages from OLTP databases.

Used: C# 2.0, MSMQ, WCF, SOLID Design Principles, Commerce Server .NET, SQL Server 2008 R2, Performance Optimisation, SOA, Visual Studio, PowerShell, Test Driven Development (TDD), SSIS, SSRS

Astra Zeneca – AZ Way and Flow Projects

8 months

AZ needed of a marketing collaboration portal based on SharePoint 2007. Alen has worked with his team to identify requirements, design and deliver the solution on the platform. Document and content management, search capabilities were extensively used in the delivery. The solution delivered is compatible for SharePoint 2010 with no refactoring, thus customer saved on future migration costs.

Global pharmaceutical company was in need of a collaboration platform, Avanade and Accenture together provided a solution based on SharePoint 2010. Alen has created Site Templates to be used by marketing departments of countries. By these templates, each country will be able to create project sites, share documents, arrange meetings and store the meeting documents in a centralized system. He also worked on performance optimisation of the pages, to achieve more responsive UI, JQuery and Knockout JS was used to design pages UI code to decrease the data going back and forward between client and the server. Alen has worked with the User Experience consultants and Business Developers whilst template development.

Used: C# 3.5, SOA, MOSS 2007 / SharePoint 2007, SharePoint 2010, JQuery, Knockout JS, SharePoint Designer, Visual Studio, PowerShell

A Note on Non-UK Experience

Please note, in Middle Eastern countries like Turkey, it's usual for an individual to change jobs in a few years. This is because of the nature of emerging markets, companies' boom & bust is much more dynamic than European economic dynamics. Thus the tenure in each role stated below in

Turkey is relatively short according to European standards but all of them has got good reasons which can be disclosed upon request.

Innova Software Plc	Jan 2009 – Feb 2010	Permanent	TURKEY
----------------------------	----------------------------	------------------	---------------

Technical leader of 4 people dev team, delivered data capture system to generate leads and opportunities for largest Telecom operator in Turkey.

Used: C#, ASP.NET MVC, SqlServer 2005

Estore Online Retail Company	Aug 2007 – Jan 2009	Permanent	TURKEY
-------------------------------------	----------------------------	------------------	---------------

Technical team leader of in house developments for B2C e-retail website and consultancy about Microsoft Commerce Server 2007. Class modelling was done with SOLID principles using C#. SqlServer Integration Services was used to feed the data warehouse and execute the queries coming from SSRS reports for instant status reporting.

Used: Commerce Server 2007, ASP.NET, C#, SqlServer 2005, SSIS, SSRS

Tradesoft Business Solutions	Fab 2007 – Aug 2007	Contract	TURKEY
-------------------------------------	----------------------------	-----------------	---------------

Dynamics CRM 3.0 technical lead of 3 people team, implemented CRM solution for a local bank .

Used: Dynamics Crm 3.0, C#, Sql Server

Eczacibasi Bilisim	Oct 2006 – Jan 2007	Contract	TURKEY
---------------------------	----------------------------	-----------------	---------------

Software support department, maintenance of Stock Management System developed for Eczacıbasi Girisim Pazarlama A.S., Kanyon Facility Management project maintenance.

Also supported the maintenance work of SSIS packages to feed the SSRS reports.

Used: ASP.NET, C#, SqlServer 2005, SSIS, SSRS

Netron Institute of Technology	July 2006 - Jan 2007	Contract	TURKEY
---------------------------------------	-----------------------------	-----------------	---------------

C# 2.0 programming language instructor

Bizitek	Nov 2003 – Jun 2005.	Permanent	TURKEY
----------------	-----------------------------	------------------	---------------

Bizitek web site administration, participating in various .NET projects. Developer position in Turkey's biggest online Commerce Site Project, **Teknosa.com**

Used: MS Commerce Server 2002, MS CMS 2002, C#, SqlServer 2000

Technical Skills

Programming Languages: C#, C, C++, ASP.NET, SQL, Java, JavaScript, HTML, XML

Database Systems: MS.SQL 2012 / 2008 R2, MySQL 5.6, PostgreSQL 8, Oracle 10g

Platforms:

Microsoft/Ascentium **Commerce Server** 2009 R2 (2009, 2007, 2002),

Microsoft SharePoint Server 2013, 2010, 2007, 2003

Microsoft **Dynamics CRM** 2011, Microsoft Dynamics CRM 3.0,

Operating Systems: Linux Ubuntu and other distributions, Microsoft Operating Systems, Cloud systems Windows Azure, Amazon AWS,

Education and Certifications

Istanbul Technical University

October 1999-June 2003

BSc Mathematics Engineering graduated in **top 10 of total 400 students** with **GPA 3.01** out of 4.00.

My dissertation was about financial systems simulation using java application. Completed several Artificial Intelligence related MSc Level courses.

Project Management Professional Training, Feb 2008

Microsoft Certified Professional Developer MCPD, MCTS certified. Exams passed and dates can be checked from the link below.

<https://mcp.microsoft.com/anonymous/transcript/validate>

Transcript ID: 702836 Password: 20131370

All Exams for Microsoft SharePoint Developer 2010, Microsoft Dynamics CRM 2011, SQL Server 2005,

C# Web Apps

Languages

English: Good Level (IELTS overall score: 7 out of 9), Armenian: Native, Turkish: Native

Interests

Swimming, watching movies, cycling

References

Excellent - Available on request