

DI

# Ahmet Alper Özağaç

alper.ozagac@gmail.com

+43 (0) 660 237 99 17

Marchetti g. 12/2 1060 Wien

Birth | Origin

11.03.1971, Istanbul

Work permit | Citizenship

Europe wide, Austria

English ○ COM2  
German ○ COM1  
Turkish ○ COM0  
default

2002  married = true  
2006  children = 3  
2015 



- Reducing *the cost of software* is not a pointless discussion, as long as your development goal is to *reduce complexity* and *minimise dependencies*.
- Those who think *Clean Code principals* are optional, seem *always busy* under the burden of *terrible debug sessions* and *endless maintenance*.

## Study

TU Vienna, Technical Mathematics

- **Master Degree (June 2006)**, with a concentration in Mathematical Computer Science
- **Thesis** : Visualisation of data from Micro-fabrication Simulation

## Professional Background

Present **WH-Interactive GmbH**  
May 2019 as *Senior Full-stack Developer / Software Architect*

I was responsible for guiding junior developers technically across both frontend and backend projects. My core responsibilities included *managing critical technology transitions*, actively contributing to *frontend and backend implementations*, and participating in *architectural design* processes. Additionally, I was involved in *requirement analysis*, *effort estimation*, *pull request reviews*, and *deployment configuration* management.

A significant portion of my development work was related to the .NET software products within the **Mein Wien** domain (mein.wien.gv.at). Additionally, I contributed to *internal Java projects*, such as the development and improvement of ZSAM, a user-friendly CRM solution built on *Java and React/TypeScript*.

### Migration of Mein Wien Projects to .NET 8

I managed the migration of Mein Wien projects (*Portal and DataBroker*) to **.NET 8**, transforming them into a *robust layered architecture*.

Critical components were restructured, *dependencies* were made *unidirectional*, and responsibilities were *encapsulated* to improve *modularity* and *scalability*. Outdated NuGet packages were replaced with modern alternatives, and a *unified serialization and service configuration* standard (*System.Text.Json*) was applied across the system.

Key improvements included the *redesign of template management* and *decoupling external services*. Services violating the *dependency inversion* principle were refactored by introducing interfaces and *encapsulating direct dependencies*. Repository structures were enhanced to support provider-independent operation, ensuring flexibility and consistency across the platform.

This comprehensive refactoring improved the system's *sustainability*, *testability*, and performance. By adopting *clean architectural principles* such as dependency inversion and separation of concerns, a sustainable and future-proof foundation was established for the Mein Wien platform, guaranteeing its *long-term stability*, modular growth, and adaptability to emerging technologies.

### Key Contributions

- Integrated *Parcel* configurations for Visual Studio, streamlining development processes and enabling flexible *SASS/CSS* management. Published shared components and legacy dependencies as a public *NPM module* using *Rollup* for seamless feature integration.
- Transitioned user address and location data to a new format and successfully migrated the Oracle database.
- Replaced the legacy **Handy-Signatur** Login system with **ID-Austria Login** for improved security and usability.
- Substituted *Bootstrap* with an internal style library (**Pattern Lib**) and adapted missing functionalities with diverse *npm* modules.
- Conducted effort estimation for **Xamarin** to **.NET MAUI** migration of a mobile application, ensuring a comprehensive analysis of transition requirements.
- Provided architectural technical support and performed pull request reviews for **KALON** (*Kalender Online*) projects.
- Designed a *new architecture* and performed effort estimation for the migration of a *music school management system*, ensuring scalability and modernised functionality.

### React Module for Digital Application Forms

Developed a React-based framework to simplify the integration of digital application forms across multiple projects. The framework supported state management, step navigation, and routing, allowing developers to focus solely on business logic. Introduced Leaflet integration and an address service to enhance user experience. Enabled seamless implementation of new forms such as "Working on the Street" and "Gastronomy", while adapting existing forms for consistency and scalability.

### Home Care Application & Corona Tracking Tool

Led the frontend development of Austria's Home Care Application and Corona Tracking Tool ([wien.gv.at/homecare](https://wien.gv.at/homecare)), collecting updates and lab reports from quarantined citizens to track COVID-19. Built using React principles and atomic design patterns, with Storybook integration for comprehensive component documentation and rigorous scenario testing, ensuring robustness and reliability.

**Technologies :** *Git, Fork, Bitbucket, Jira, Jenkins, Confluence, Slack, Visual Studio 2017-2022, VS-Code, IntelliJ Idea, Oracle/PostgreSQL, Docker, C#, Asp .Net Core, EF Core, Java, Spring, Hibernate, Node, Javascript, Typescript, React, Babel, Webpack, Parcel, Rollup, Vite, ESLint, Storybook, jQuery, Material-UI, Bootstrap, Tailwind, SASS, CSS, HTML*

Nov 2018 **SIS Informatik GmbH**  
June 2018 as *Senior Net. Developer*

Further implementations and fixes of Transport Management Software (*Frasped*) is used by logistic companies:

- Warehouse Statistics implementation, Service & Desktop Client integration.
- Extracting an Import Service from Transport Tracking Web Portal, reimplementing as a general windows service with thread management and scheduling feature.
- Analyse & Integration some new features in Desktop UI & Service. SSL Web Client implementation for retrieving Diesel Prices, Barcode 128 integration for RDL reports.
- Some critical threading and caching fixes. Performance optimisations in Service Backend and depended SQL queries.

**Technologies :** *SVN, Visual Studio 2017 (Community), SQL Server 2012-2016, Mysql, HeidiSql, SSRS, SQL, WCF, Asp .Net MVC, WinForms, Ado .Net, Janus UI, MvcGrid, SQL Profiler, Tortoise SVN, WinMerge, TcpView, CodeMaid, CodeGraph, SourceMonitor*

May 2018 **Active Solution AG**  
September 2016 as *Senior Net. Developer*

Working in different clients of this IT Consulting Company.

### **Post AG**

(March 2017 - April 2018)

- Further implementations of Employee Working time and Workplace Management Software (*Teamwork*). Refactoring and simplification of Mobile Clients Backend, which used for intersected Service and Absence Time Optimisation of employees. Renovation and implementation of some Reporting features in web portal and REST Service.
- Further implementations of Capacity / Activity Analyse Web Portal for Management (*SYSFN*).
- Initial implementation of a Rest Service for Regional Distribution Optimisation of Post Objects regarding type or targets (*PRIMA*).
- Second Level Support of a legacy software, used for investigation of lost or damaged posts (*NFS*). Error Analyse under complex service dependencies and debug difficulties caused by old software technologies. Some error handling and validation fixes for damage reporting features in web portal.

### **ÖBB BCC GmbH**

(September 2016 - Februar 2017)

ÖBB operates a Key Performance Indicator (KPI) management system that defines, implements and regularly reports key figures based on the strategy for key processes and business units. The key figures come from the various divisions and are collected centrally and prepared in reports.

Februar 2017 To reduce the effort and the error rate, a development project for automation has been started. A  
 September 2016 web portal has been implemented to manage the key figures profiles and related key figure values. Implemented portal enables fully automated forecasting calculations and miscellaneous reports using Sql Server Reporting Services.

**Technologies :** *Scrum, VSTS, GIT, SonarQube, Redmine, JIRA, Bamboo, BitBucket, Visual Studio 2015-2017, SqlServer 2014-2016, BI for VS, IIS, Azure Data Lake, Azure Data Factory, C#, SQL, U-SQL, SSRS, VBScript, Classic ASP, Asp .Net Web Forms/MVC/Core/Web API, WCF, Rest, Soap, Swagger, Entity Framework, Dapper, FluentValidator, EPPlus, nlog, MsTest, XUnit, NUnit, SimpleInjector, Javascript, JQuery, Bootstrap, CSS, HTML, XML, Angular 1.0, JqWidgets, JqGrid*

May 2016 **Admiral Sportwetten GmbH**  
 September 2011 as *Software Developer*

- Initial design, implementation and integration of a game framework, named *Calcore*, which provides following features:
  - It simplifies the game implementations in SQL-Server.
  - Embedded safe SQLCLR assembly, with ability of parallel executions
  - Developer goodies such as a small numeric library / type independent SQL Support.
  - Internal messaging system to easily log errors, warnings or trace messages.
- Analyse and optimisation of *SlotCars* Calculation (*Odds Estimation for Winner / Exacta Bets*). Execution time has been reduced 90%.
- Internationalisation of a web service, which is responsible some branch facilities, such as reporting of terminals or checking and redeeming of bet slips
- Web service integration of *Calcore* that full fills real-time changes of defined parameter sets and their values. Quality Provider Integration of *Calcore* to check the estimation quality with real event results.
- Development of some game concepts and *Calcore* integration:
  - *SlotCars*: Integration of Old *SlotCars* Calculation
  - *SpeedBet* : Extended *SlotCars* (++ trifecta / place bets / false start / not finished...)
  - *Race66* : Estimation of next Race finish time under certain probability.
- A Monitoring System implemented for *Calcore* with following specialities:
  - Monitoring internal steps of implemented calculations on *Calcore*.
  - Quality Provider executions and related visualisations.
  - Visual tracing of affects of parameter modifications
  - Live content management under parallel executions.
  - One-click PDF Reporting system that reflects interactive content adhoc state.

**Technologies :** *Scrum, TFS, JIRA, Visual Studio 2010-2013, SqlServer 2008-2012, IIS, C#, WPF, T-SQL, Ado .Net, SQLCLR, SSRS, Webservices, WCF, Linq to SQL, Asp .Net MVC, NUnit, Caliburn Micro, OxyPlot, MigraDoc, PDFSharp, Javascript, JQuery, Bootstrap, CSS, HTML, XML, Resharper, Ghostscript, StyleCop*

September 2011 **S-Versicherung | Camelot Informatik and Consulting GmbH**  
May 2008 as *Software Developer*

- Analyse and optimisation of a windows service (*OPUS InfoBroker*) that handles information requests about insurance products. After optimisation, code had 66% less lines. Memory requirements have been reduced from 140MB to 32MB, initialisation time has been reduced from 6-10 seconds to 1-2 seconds.
- User interface design and further implementations of some intern web portals, such as time tracking or behavioural analysis for employees (*Insight*). The portal enables the workgroup to be made up of matching members. It made possible to compare employees or teams.
- Renovation and extending test framework, used to simulate or to test insurance products. This project has started with complete backend refactoring which is based on insurance specialist knowledge. Thread safety issues have been solved. Internal interfaces and Command line interface of test framework has been simplified.
- An intuitive WPF Client implemented for Test Framework under MVVM design principals, that can be used even by users which have no experience about insurance Products.

This WPF client has opportunity to create/edit/delete products meanwhile Simulations runs in background. Some MVVM features implemented such as concurrent Observable collection or extended Grid View which provide Drag & Drop Loading and automatic Identification of Products. Another WPF client (*Funds Monitor*) design & implementation. Frontend was based on already implemented WPF extensions by test framework renovation.

**Technologies** : SVN, Visual Studio 2008-2010, SqlServer 2008, IIS, C#, WPF, WCF, T-SQL, Webservices, Asp .Net Webforms, AJAX, Javascript, JQuery, CSS, HTML, XML, Dot Tracer, Source Monitor

January 2008 **Ikarus Security Software | ASLE International**  
September 2007 as *IT Consulter*

Consultancy and design of Ikarus Virus Utilities for Turkey, design of Turkish web portal, Installer development, Turkish localisation & user manual.

**Technologies** : Inno Setup, Pascal scripting, Visual Studio 2005, Javascript, CSS, HTML, XML, Dreamviewer, Photoshop, MS-Office

June 2007 **EVOX Software Solutions | ATOS Origin**  
November 2006 as *IT Consulter*

Further development of *DOXIS Response Manager* (Smart Customer Care Solution). Intensive support for DOXIS in Düsseldorf by *ATOS Origin*: Client-specific script development in Sax-basic for telecommunication companies such as *e-Plus* und *Base*, testing and reporting.

**Technologies** : Visual Studio 2005, Visual C++, Visual Basic, Sax-Basic, SqlServer 2005

September 2006 **Concurrently with University Education**  
March 2001 as *Student*

*Turkish Tourism Office Vienna*

- internal accounting system implementation for Mac-OS environment. Existing form design has been taken one-to-one to facilitate the transition from paper to computer.
- Implementation an interactive presentation software, used on kiosks with touch screens. The software had an administrative interface to edit presentation content and has been used in various exhibitions to present tourist information.
- Required implementations for my own courses and graduate thesis.

**Technologies :** *Mac-OS 8, Suse Linux 9.3, GNU C++, QT Widgets, CGAL, Geom-View, Appletalk, FileMaker, Applescript, Modula, Matlab, Latex, Lingo, Director, Flash, Photoshop, DreamViewer, Html, CSS, Javascript*

February 2001 **Coco Software Engineering GmbH**  
August 1999 as *Multimedia Developer*

Conception and development of cross platform multimedia CDs for mainly telecom companies such as *Telekom Austria, A1* and *News Club*. The CDs included interactive multimedia content and some utilities such as Tarif calculator for telephone calls. Some cross platform CDs have been distributed to customers to configure automatically their Internet connections.

**Technologies :** *Mac-OS 7-8, Windows NT/95/98/Me/2000, Visual C++, Applescript, Lingo, ActionScript, Director, Flash, Photoshop, DreamViewer, Html, CSS, Javascript*

March 1999 **Metropol Multimedia, Istanbul**  
August 1993 as *Multimedia Developer*

Graphic design, content and development of interactive cross platform multimedia CDs.

- *Hagia Sophia* presentation CD, for the kiosks at the museum entrance. The CD included interactive content about history of Hagia Sophia and some games for the children such as painting, puzzle with mosaic stones etc.
- *Kale Seramik* interactive product catalog containing all tiles, ceramics, and paving tiles, which can be selected and furnished by user on 3D bathroom or kitchen templates.
- Portfolio CDs, which presented the works of various artists. Every CD have had exclusive interactivity and sound design, specified together with artists themselves.

Development of some various commercial games (arcades, puzzles, shooters, tandems, etc.). for *Alfa-Romeo* and *Mac-World Turkey*. These games have been either presented in client showrooms or distributed on floppy disks with *Mac-World* editions.

**Technologies :** *Mac-OS 7, Windows NT/95/98, Applescript, Lingo, ActionScript, AuthorWare, Director, After Effects, AVID, Bryce, Infini-D, Poser, Illustrator, Photoshop, DreamViewer, Debabelizer*

## Before 1993 Major IT experiences in Istanbul

- *Orion Shipping and Trading Company*: Network installation and administration of Novell Netware 3.2 in 5 different locations in Istanbul. Implementation of archiving automation system for telex communications. Integration of daily shipping reports with internal accounting system. Installations and technical support for Windows 3.1 users.
- *Kutlu Informatics* : Product Design and user interface designs of some Mac-OS applications.
- *Mega Computer* : Technical support and montage of Intel 80-286/386/486 based computers.
- *Üsküdar High School* : Teaching at a state school in Istanbul *Programming with Basic and Pascal*.
- *Logic Computer*: C-64, C-128 and Amiga technical support. Client specific diverse software solutions for MS-DOS based PC systems.

**Technologies** : *Novell Netware 3.2, MS-DOS, Windows 3.1, MacOS 6, Basic, Fortran, C, MASM, QuickBasic, Turbo Pascal, Turbo C, Progress, Clipper, DB2, Lotus-123, Dr. Halo, PC-Tools, Norton Utilities, Sidekick, Clipper, Mac-OS, Hypercard, Photoshop, Illustrator, QuarkXpress ,C-64, Amiga-OS, 64MON, Simon's Basic, Deluxe Paint*



# Occupational Interests

Software Design, Software Architectures, Domain Design, Algorithms & Data Structures, Threading & Synchronisation, Performance Tuning, Maintainability, Monitoring, Visualisation, Software Usability, UI Design

# Hobbies

Skating, Cycling, Travelling, Photography, Drawing.

```
It's cheaper to build high-quality
software than it is to build and fix low-
quality software.
You should go to the effort of writing
good code, which you can do once,
rather than the effort of reading bad
code, which you'd have to do again and
again.
```

```
Complexity is not a new feature of
software development. Reduce complexity.
The single most important reason to create
a routine is to reduce a program's
complexity.
Create a routine to hide information so
that you won't need to think about it.
```

–Steve McConnell

```
What is it that makes a design rigid,
fragile and immobile?
- It is the interdependence of the modules
within that design.
```

```
What is it that makes a design
maintainable, robust and reusable?
- It is the lack of interdependencies.
```

–Robert C. Martin

```
The Agile methods have their own problems
and limitations;
they advocate simplicity, but everybody
has their own view of what that means.
Also, continuous refactoring done by
developers
without solid design principles will
produce code that is hard to understand or
change.
```

```
And while the waterfall approach may lead
to over-engineering,
the fear of over-engineering may lead to
another fear:
the fear of doing a deep, thoroughly
thought out design.
```

–Eric Evans

```
Advanced programmers have strong
expectations about what programs should
look like,
and when those expectations are violated –
in seemingly innocuous ways –
their performance drops drastically.
```

–Elliot Soloway, Kate Ehrlich

# Documents

- ▶ Microsoft Certified Professional
- ▶ Microsoft Certified Specialist C#
- ▶ Insight Personal Analyse
- ▶ Certificate Active Solution AG
- ▶ Certificate Admiral Sportwetten GmbH
- ▶ Certificate Camelot Informatik and Consulting GmbH
- ▶ Certificate CoCo Software Engineering GmbH