



## Mikael Sälle

### Senior Systems architect, developer and test automation, full stack

Mikael enjoy working with test driven development in C#, Java, Microsoft SQL Server and framework related development.

He has also worked a lot with Microsoft SQL Server since 1992 and developed mutual fund solutions and other securities application using SQL Server and C#.

Application developer, technical tester, test automation, database design and administration and project manager in a wide variety of business applications.

Experience within mutual funds since 1994.

#### Core Skills

- Developer C#
- Test driven development
- Database design
- Test automation
- Agile methodologies
- Build and Release system
- Data Pipeline
- Microsoft SQL-server
- Azure services

#### Technologies

- Message brokers
- Azure DevOps
- Web services
- Java
- Node JS, npm
- Angular

## Career Summary

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### **May 2019 - Present** **Fora - Test automation**

At Fora, I started as a test automation developer using Claremont TAF (Test Automation Framework) for Java. Later in the project we changed to the .NET version of TAF. As a test automation developer I have delivered solutions to test things like API tests (rest and soap), integration tests, migration tests and UI tests.

Later I also got involved with performance testing, such as test strategies, test requirements and performance testing.

Currently I work as a system tester, testing Salesforce and Salesforce integration.

### **October 2015 - May 2019** **Trapets - AML Systems Developer**

Working with Trapets Instantwatch AML web application as a full stack developer.

As a full stack developer at Trapets, I contributed to their Instantwatch surveillance platform that requires high performance database functionality using Microsoft SQL Server. The development is done by writing complex and high-performance stored procedures and/or CLR functions. In Instantwatch business layer there are equal requirements on performance as in the database, here we use C# to develop business logic and services to interact with other systems or web applications. In the web client application, there is a good mix off technologies like Angular, Typescript/JavaScript, MVC, Entity Framework, 3rd party packages/ components and application layout and design.

All together this forms the complete development platform that is used in two different Instantwatch applications by Trapets, Instantwatch Market and Instantwatch AML and my main focus is towards AML where I mostly do new end user web functionality but also a complete new function spanning from the database up to the web application.

## **August 2014 - October 2015**

### **AFA Försäkring - Technical Tester**

At this assignment at AFA Försäkring I worked full time as a technical tester, running and writing unit tests, writing automated tests using Selenium, performing manual testing and regression tests. I used Microsoft TFS, Test Manager and Visual Studio daily.

I performed agile testing on internal web applications and AFAs public web application.

## **November 2013 - June 2014**

### **Tieto - Consultant at TCM**

I mainly worked with Microsoft SQL Server development in TCM, Tieto Client Manager, mostly towards Nordea Sweden. TCM is a mutual funds application that handles customers holdings in mutual funds.

## **November 2010 - June 2013**

### **Tieto - Consultant at AbaSecurities (AbaSec)**

Between August 2010 and 2013, I have been a developer at Tieto, working with the product AbaSecurities. At the beginning I did mostly end customer specific development in C # and SQL Server in AbaSecurities for one of Tieto's customers in Norway and I had constant contact with the customer regarding new development requests and bug reports in already existing functions.

I also had the opportunity, on several occasions, to work with product support and had direct contact with the company's customers to solve different problems within the product, ranging from small simple errors to very advanced problems. I also managed and developed older modules written in Visual Basic and the use of the reporting tool Crystal reports.

Throughout the assignment, a migration of the entire AbaSecurities product was going on, where all the existing functions have been rewritten from Visual Basic 6.0 to C# and my responsibility was to deliver one of the key functions of AbaSecurities, the manual trade registration. During this time, I have been in close contact with the architect and made specific suggestions to complement AbaSecurities framework, called AbaSecurities SDK.

Unit testing was an important part of the development process.

## **January 2010 - July 2010 (7 months)**

### **MFEX - Consultant**

During these six months I handed over all my knowledge regarding system development of the migration, support issues and processes and other things

## **January 2009 - December 2009 (1 year)**

### **MFEX - Head of support**

Internal application support and business support.

## **June 2007 - December 2008**

### **MFEX - Head of R&D Trading**

Modernization of an existing ERP system developed in Visual Basic 6.0 and SQL Server.

At first the entire system would be delivered at one time, but the customer chose later to modernize one module at a time.

During the first part of the project, almost all business logics was developed in SQL Server. When the project was amended to make partial deliveries of modules, the customer decided to put all the business logic in C# business objects and to work according to DDD (Domain Driven Design) and simultaneously introduced unit testing throughout the project.

During the project, there was also a need to manage the existing system in order to connect new customers and expand with new features, which still had to be made in Visual Basic 6.0 and SQL Server. This had a negative effect on the modernization since it new functions had to be developed in two systems at the same time causing the original timeline to fail.

My roles changed throughout then project and I needed to handle everything from support and managing all the architects and developers.

## **April 2005 - June 2007**

### **MFEX - Head of Technology**

I managed the IT department at MFEX, dealing with maintenance and support of MFEX in house developed mutual funds trading system, development and integration of new fund distributors, meetings with distributors.

**April 2000 - April 2005**  
**TietoEnator - Consultant**

Development of financial systems mostly related to mutual funds.

Between 2000 and 2002 I had the opportunity to develop a large and brand new mutual funds trading platform for DWS in Luxembourg (€-funds 21) using Microsoft technologies including SQL Server, ASP and Microsoft MQ to communicate with DWS existing bank and fund platform running on IBM mainframes.

Between 2002 and 2004 a small team at TietoEnator developed a product named TFM or TietoEnator Fund Manager. TFM was designed for banks and fund companies to manage funds and perform NAV calculations and to perform and keep track of accounting within each fund.

**January 1999 - April 2000**  
**Entra Capital Solutions AB - Consultant**

Consultant/developer in banking, financial and securities systems.

In 1999 I was one of the database architects and developers of the business and fund trading systems for Fondmarknaden.se, where end clients for the first time could trade mutual funds from different fund companies having only one account at Fondmarknaden.se. Prior to that an end client needed a fund account at each fund company. The platform was developed using Microsoft technologies using SQL Server, ASP and Visual Basic.

**July 1998 – December**  
**Internetbyrå – Senior database developer**

Senior database developer working with implementations for travel agencies.



## **January 1994 - February 1998**

### **Mixware AB - System Developer**

In the beginning of 1994 I handled Microsoft FoxPro support, both for Macintosh, MS-DOS, and Windows, at Mixware since I handled the FoxPro support at Microsoft before I started to work for Mixware.

Mixware developed their own set of Microsoft Office add-ins, called MID, to let end users bring out data from their business systems. MID LinXs helped users to create pivot tables in Excel using a set of templates. MID Reports was another tool to produce Excel reports including graphs and information suited for end client reporting.

Develop data warehouse platform Orca (based on Microsoft SQL Server 6.0) Develop CRM system Dolphin (based on Microsoft SQL Server 6.x)

## **July 1991 - December 1993**

### **Microsoft AB - Software Support**

End client product support on the following applications

- Multiplan
- Word for MS-DOS version 4.0, 5.0 and 5.5 Works for MS-DOS version 1.05 and 2.0 Microsoft Mouse, Flight Simulator version 4.0
- MS-DOS 5.0 and 6.0
- Windows 3.00 and 3.1x
- Windows for Workgroups 3.1x
- ODBC Desktop Drivers and SDK
- Access 1.x and 2.0
- Access 1.x and 2.0 Access Distribution Toolkit (ADT)
- FoxBase+ 1.x and 2.x for Macintosh and MS-DOS
- FoxPro 2.x for MS-DOS and Windows, Distribution Kit and Library Construction Kit



## **March 1989 - Present (31 years 8 months)**

### **Buseco Consulting AB**

From the beginning, Buseco has always focused on databases and database applications. At Buseco I developed my first own RDBMS system called Essque. Today all the development is done using test driven development in C# or Java and with support of the SOLID principle.

In the role as a systems architect I am currently responsible for a major in house application development framework suited for any company in the need for a geo redundant platform, with transactional support like blockchain and multiple layers of security and secure storage using strong encryption.

As a full stack developer at Buseco we have developed several systems using Microsoft SQL Server and Visual Studio related languages, for clients like Assa Abloy (Copiast since 2002), Nokas since 2017, accounting and other transaction intensive systems, as well as anti-money laundering.

My roles within all these projects has varied over time and I have worked as; systems architect, database developer, SQL-server storage specialist, lead developer, client application developer, web application developer.

Since 2012 we mostly develop new things with support from test driven development, not necessarily test first but unit testing.

### Languages

Swedish Native  
English Fluent

### Technical Knowledge

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Area	Years of experience
Developer C# and Java	30
SQL	28
CI/CD Pipeline	8
CI/CD Azure	5
Azure Service	5
TDD	10
TypeScript, Java script	6