Mirko Gatto

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About me

I'm an Italian software architect specialized in cloud computing, promoter of operational excellence, security, infrastructure as code, and automation. I love to work in diverse and globally distributed teams. I wake in the morning because there are problems to be solved.

Relevant Experience

May 2021 - Current

Principal Software Engineer, *Remote, France*, Trimble Solutions Corporation.
I worked on a distributed team building cloud native solutions for the Structures division.

- Created an interoperability layer between the Tirmble identity service and the legacy Tekla desktop applications, built with AWS, SAM, .NET Core and C#.
- Created the https://www.tekla.com service infrastructure, built with AWS, CDK, ECS, CloudFront, TypeScript and Docker.
- Created the common search service embedded in https://www.tekla.com and https://support.tekla.com, used daily by thousands of Tekla customers to search support articles and marketing material, built with AWS, SAM, .NET Core, C#, TypeScript, React and Elasticsearch.
- Created a generic cross cloud file synchronization solution, built with AWS, CDK, Lambda, Azure, CDK Terraform, Functions and TypeScript.
- Worked as solution architect, designing cloud based solutions for the Structures divisions teams, using AWS and Azure.
- I was part of the site reliability team rotation, responding to operational and security incidents using PagerDuty.
- Developed the security scan pipelines for my teams codebase, using WhiteSource, SonarQube, OWASP Zap and SecurityCodeScan.
- Developed a CI/CD pipeline with AWS CodeBuild, BitBucket, TypeScript, NodeJs and React.

May 2018 - May 2021

Cloud Software Architect, *Remote, France*, Trimble Solutions Corporation.
I worked on a distributed team building web based solutions for Tekla customers.

- Created the Tekla online CI/CD pipeline, built with AWS, TeamCity, ECS, EFS S3 and Docker.
- Created the https://support.tekla.com service infrastructure, built with AWS, CloudFormation, CloudFront, WAF, ECS and Docker.
- Created a multi-region interoperability layer between the Tekla desktop applications and the license and identity services, built with AWS, SAM, .NET Core and C#.
- Created the Tekla license SDK used by the Tekla desktop applications, built with .NET Framework, SQLite and C#.
- Created the common infrastructure for the Tekla online services, built with AWS, CloudFormation, WAF, Slack, Ansible, Python and Lambda.
- Worked as solution architect, designing AWS based solutions for the Tekla online teams.

January 2018 - March 2018

Cloud System Developer, *Zurich, Switzerland*, Cloudreach.
I worked on the cloud enablement team, helping customers implementing solutions based on AWS.

- Developed the https://blick.ch service infrastructure built with AWS, ECS, Cloudformation and Docker.

April 2015 - **Software Architect**, *Espoo, Finland*, Trimble Solutions Corporation.

January 2018 I worked on a distributed team building web based solutions for Tekla customers.

- Created the Tekla online services AWS infrastructure using CloudFormation, ElasticBeanstalk, Sumologic, Datadog and PowerShell.
- Designed the migration of 12 Tekla online services to AWS. The services were based on .NET, Java, NodeJs and Drupal.
- Created a web client application embedded in the Tekla desktop products, built with TypeScript/React.js, CefSharp, C# and WPF.
- Created a tracking and notification service used to collect and process millions of events gathered daily from web, desktop and mobile applications, built with AWS, Lambda, DynamoDb, C#, .NET core, TypeScript and React. Implemented part of the portable .NET SDK for occasionally connected clients built with C# and SQLite.
- Created a Java application to perform the migration of hundreds of thousands of Tekla customers accounts to the Trimble common identity.
- Developed new features in the interoperability layer between Tekla Structures and the Tekla online services, built with C++, C# .NET and WPF.

January 2011 **Software Engineer**, *Espoo, Finland*, Tekla Corporation.

- April 2015 I worked as a developer and team leader in teams building Tekla products.

- Fusion SDK developer 2014–2015. Fusion SDK provides guidance and tools for modern, easy to build and maintain enterprise applications that run on Windows (WPF) and iOS and Android (Xamarin Forms). My responsibilities included creating top class UI components (WPF, Xamarin Forms), writing documentation, tutoring and training colleagues.
- BIM Platform Team Leader and Scrum Master 2012-2014. The BIM Platform provides the building blocks for BIM applications. It offers both UI and Data components to build advanced business applications. My responsibility were scrum master and team leader, developer on UI, data services and mobile applications. I've also maintained Tekla Cop an extension of FxCop for static code analysis.
- Tekla BIMsight developer 2011-2012. Served as WPF developer, mainly adding new features and fixing existing bugs.
- Construction Management Add-Ons Team Leader 2011.
- Tekla Structures Open API developer 2011.

June 2006 - **Software Engineer**, *Genoa, Italy*, Ansaldo Sistemi Industriali.

December I worked as a developer building the Ansaldo Micro System Environment (AMS).

2010
- Created a web-based diagnostic system built with ASP .NET Framework, C# and Silverlight.
- Created a plug-in based application used to provide the infrastructure for configuration, development, deployment and diagnostic of the AMS, built with .NET Framework, Winforms, C# and MS SQLServer.
- Acted as a teacher in classes for technical support staff and automation engineer (Italian/English).
- Administered a VMWare ESX cluster.

January 2000 - January 2002	**Junior Software Engineer**, *Genoa, Italy*, Elsag S.p.A.. I worked as a developer in teams building a automatic fare collection systems and an electricity stock exchange platform. ○ Created a GUI used to control the printing of documents, built with Visual C++. ○ Created the coding driver used to write to magnetic tickets and contactless cards, built with C++. ○ Developed a proof of concept version of the new electricity stock exchange platform using ASP.NET 2.0 and JavaScript. ○ Developed a centralized address book service used in the GME websites, built with ASP.NET 2.0 and JavaScript. ○ Developed a data warehouse service used to archive GME market results, built with .NET 1.1 and JavaScript.
January 2000 - January 2002	**Junior Software Engineer**, *Genoa, Italy*, Telema S.r.l.. I worked as a junior developer in teams building industrial automation solutions. ○ Created a web-based application to track the employees working hours ASP 3.0 and MS SQL Server. ○ Developed a desktop software used to control the plastic roll cut, built with Visual C++. ○ Developed a communication module between remotely operated submarine and the tracking system SCADA, built with C++.

Education, certifications and courses

December 2021	**Course**, *MOOC*, DevOps with Kubernetes, https://devopswithkubernetes.com/.
December 2020	**Course**, *MOOC*, Full Stack Open, https://fullstackopen.com/.
July 2020	**Certification**, *Azure Fundamentals*, Score 94%.
February 2018	**Certification**, *AWS Solution Architect Associate*, Score 100%.
March 2017	**Course**, *MOOC*, Cybersecurity Base, https://cybersecuritybase.mooc.fi/.
November 2013	**Certification**, *Scrum Alliance*, Espoo, Finland, Scrum Master.
May 2000 - June 2020	**Diploma**, *Santi Institute*, Genoa, Italy, C++ programmer.
September 1993 - June 1998	**High school diploma**, *ITC Einaudi*, Genoa, Italy. Accountant and programmer

Skills

Programming Languages: C#, TypeScript, Python, Bash, PowerShell, CloudFormation.

Frameworks & Libraries: React, .NET Framework, AWS SDK.

Document Languages: HTML, Markdown, OpenAPI (swagger).

Databases: SQLite, DynamoDB.

Deployment Environments: Docker, Kubernetes, K3s.

Cloud Environments: AWS, Azure, Cloudflare.

Projects and Open Source

Personal Blog, *https://blog.xops.dev/*

My personal blog delivered from my home network, built with Hugo, k3s, raspberry pi, cloudflare running on a raspberry pi cluster.

Chip-8 Emulator, *https://github.com/nekoni/SharpOtto*

Created a chip-8 emulator using C#, .NET Core and WPF.

NekoDrive NFS client, *https://github.com/nekoni/nekodrive*

Created an NFS client and libraries for Windows.

This Resume, *https://github.com/mlgatto/resume*

View the source of this resume in LaTeX.