

Personal Details

Name:	Mihai Andrei	
Position:	Senior Technical Lead / Senior Architect	
Year of birth:	1981	
IT experienced since:	2003	
Education:	1999 – 2005, Bachelor of Science (IT) Politehnica University, Bucharest	
LinkedIn profile:	http://www.linkedin.com/in/conceptumsoftwaremihai	
Languages:	Romanian: native speaker English: excellent command / highly proficient in spoken and written English	
Profile Summary:	<p>I am a Senior Software Engineer with over 17 years of experience in the IT field.</p> <p>I have been involved in many projects, from straightforward web applications to complex, large scale IT systems, targeting a wide range of businesses and technologies.</p> <p>I have excellent theoretical and practical knowledge regarding general patterns and practices, a good knowledge of current security standards, and I'm very experienced in Agile development methods and CI/CD practices.</p> <p>I'm a very structured and methodical person and quick in learning new technologies and IT processes.</p> <p>I have extensive experience in outsourcing / remote work- starting with 2006 I am performing mostly in outsourcing, working remotely on various projects with remote teams from USA, Canada, UK, Norway, Australia.</p> <p>For the last 5 years I've resumed work in my own small outsourcing start-up, and my intention is to grow to a small team of 2-3 developers and 1 QA.</p>	

Projects Experience

For additional details of my professional career you can also check my [LinkedIn Profile](#) . I've listed next only the most important projects I've been part of so far:

Period:	2018/07 – present
Client:	CageEye
Project Description:	<p>Working in a team of five developers, implementing CageEye's fish farming monitoring solution.</p> <p>RabbitMQ is used for message transfer, also a scheduled jobs solution was emulated around it.</p> <p>Back-end flows built around Actor model, using Akka.NET library.</p> <p>Extensive work with AngularJS, Typescript and D3 data visualizations.</p> <p>Integrating with PostgreSQL, Cassandra and Google Storage for storing data.</p> <p>Integration with external libraries – met.no (environmental data), HubSpot API (HubSpot Contacts API, OAuth 2.0)</p> <p>Additional work in Python and minimal work in Apache Spark for building reports.</p> <p>Google Cloud / Kubernetes / Stackdriver – used for hosting and monitoring the cloud solution.</p>
Used technologies:	ASP.NET Core 3.1, Akka.NET, AngularJS 8.2, D3, OAuth2, RabbitMQ, PostgreSQL, Cassandra, Redis, Python, MessagePack, Apache Spark, Git, GitHub, CircleCI, Docker, Google Cloud, StackDriver, Kubernetes, Ansible
Role in project:	System Development

Period:	2017/11 – 2018/02
Client:	Project based outsourcing for Arnia Software
Project Description:	<p>Implemented a custom solution for instrumenting and monitoring applications real-time.</p> <p>Implemented a set of Hangfire jobs which compose various metrics and store them in a local database.</p> <p>Implemented a REST API which reads the metrics and expose them to Prometheus.</p> <p>Implemented a REST API which other modules use for registering metrics.</p> <p>Implemented Grafana dashboards using Prometheus as a data source.</p>

Used technologies:	ASP.NET Core 2.0, Dapper, Autofac, Git, GitLab, GoCD, Hangfire, Prometheus, Grafana
Role in project:	System Development, System Design

Period:	2017/08 - 2017/11
Client:	Own project – a platform for promoting artists
Project Description:	<p>Implemented a platform for promoting artists - an online portfolio website where artists can upload their own portfolio, using video, audio, document or image files posts.</p> <p>Built an engine on top of ffmpeg for transforming uploaded movies into several representations which are more suitable for being rendered into the website depending on the user's device and internet connectivity - HD, SD, mobile.</p>
Used technologies:	PHP, jQuery, JSON, Apache, My SQL, ffmpeg, JW Player
Role in project:	System Development, System Design

Period:	2017/05 - 2017/07
Client:	Owner at trackit.ro
Project Description:	<p>Implemented the trackit.ro website - a website aiming to ease up GPS tracking for the masses. The site and mobile app are in beta-mode, and besides tracking the product offers an export tracks feature, which can be easily integrated in and with Excel reporting templates.</p> <p>Used PhoneGap to build the mobile app which does the actual GPS tracking, at the moment the mobile app is built only for Android.</p>
Used technologies:	PHP, jQuery, JSON, Apache, My SQL, PhoneGap/mobile app development
Role in project:	System Development, System Design

Period:	2016/10 – 2017/10
Client:	Project based outsourcing for Arnia Software
Project Description:	<p>Implemented a video conferencing Web RTC based solution, for a client in the translation/interpreting business industry.</p> <p>Used the OpenTok platform for the Web RTC support, archiving options included.</p> <p>iOS and web notifications (Firebase Cloud Messaging) were implemented for notifying participants in various parts of the business flow.</p> <p>Hangfire Jobs were used for managing automated background processes.</p> <p>Security was designed around JWT tokens, including integration with a separate JWT issuer REST API component.</p>
Used technologies:	OpenTok, ASP.NET Core 2.0, Dapper, FCM, iOS notifications, Autofac, Git, GitLab,

	GoCD, Hangfire, JWT tokens
Role in project:	System Development, System Design

Period:	2016/04 – 2016/07
Client:	Project based outsourcing for Arnia Software
Project Description:	<p>Work on on revitalizing a System targeting the translation/interpreting business industry to a production ready phase.</p> <p>Extensive UI work using AngularJS and jQuery.</p> <p>Performance optimizations using a caching mechanism on 2 levels - in-memory and Redis.</p> <p>Extensive async/background processing. Some of it executed using Hangfire.</p> <p>Interesting work using Twilio APIs for the client's Interactive Voice Response module - an elaborate automated telephony system.</p>
Used technologies:	WEB API 2.2, MVC 5, AngularJS, jQuery, .NET Framework 4.5.2, Entity Fwk, Redis, Protobuf, Hangfire, MiniProfiler, Autofac, Git, GitLab, Twilio APIs, GoCD
Role in project:	System Development, System Design

Period:	2015/09 – 2016/02
Client:	UTI - IT & C Division - Project based collaboration
Project Description:	<p>Worked on an Automatic Vending Machine solution, capable of delivering cards and tickets as part of a transportation system, accepting as payment both POS and coins/banknotes.</p> <p>Integrated this solution with the transportation system's back-office.</p> <p>A lot of hardware interaction with the AVM's various components was involved, on serial and USB interfaces.</p> <p>RFID development for issuing ultralights Mifare ISO 14433A cards.</p> <p>Implemented a smart logging system using RabbitMQ, ElasticSearch and Kibana.</p>
Used technologies:	.NET 4.0, WPF, WCF, NHibernate, C++, COM, Powershell, RFID, RabbitMQ, ElasticSearch, Kibana
Role in project:	System Development, System Design

Period:	2014/12 – 2015/04
Client:	Project based outsourcing for Arnia Software

Project Description:	<p>Implemented an extension to one of the Client's notification system, for helping travellers around the world receiving notifications and benefits in case of delays regarding their scheduled flights.</p> <p>Implemented a set of REST components which integrates with other existing black-box REST components implemented by the Client, and external ones as well (e.g. flightstats.com), collaborating together for completing the system.</p> <p>Implemented a website on top of Umbraco CMS, which provides travellers around the world useful information related to the countries they are travelling to - e.g. security alerts, medical information etc. (360assistance.com)</p> <p>Technical Lead in a team of three developers.</p>
Used technologies:	WEB API 2.2, MVC 5, .NET Framework 4.5.1, Stash, Git, JIRA, Team City, Umbraco CMS, Google Maps API
Role in project:	System Development, System Design, Technical Lead

Period:	2010/10 – 2014/08
Client:	When employed at <u>IBM Romania</u>
Project Description:	<p>I've been working in IBM as a Senior Software Engineer, in the IBM Business Analytics division, for the <u>IBM Cognos Disclosure Management</u> product (acquired by <u>Certent, Inc.</u>), mainly on the Server team.</p> <p>I've been part of the analysis and development of the product's modules, clearing-up specifications and making sure the product behaves as expected. I've also done a couple of PoCs to technically validate some of the product's future modules. I've also been part of the performance improvement team - running stress tests using jMeter, identifying the bottlenecks and improving the product accordingly.</p> <p>For approximately 1 year I've also been team lead for a part of the Server development team, also trying to enforce some of the Agile (Scrum) methodologies to the rest of the team.</p> <p>In the last year in IBM I've also intensively worked with the Support team, solving a lot of the issues identified by the clients, in a fast pace in order to keep the clients on track with their line of business.</p> <p>I've been part of the server-side team, where I've applied my skills in System design and System development. I've also had lead developer responsibilities for a part of the server-side team, clarifying the specifications and monitoring the evolution of the work done by the team members.</p>
Used technologies:	.NET 4.0, WCF, NHibernate, jMeter
Role in project:	System Development, System Design

Period:	2010/11 - 2011/04
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Client:	<u>Wirtgen Romania</u> (outsourced by <u>Optima Group</u>)
Project Description:	<p>System analysis, System architecture and design of a robust Warehouse Management System web-based solution, for one of Optima's clients.</p> <p>A special consideration was the design and technical solutions chosen for the user interface, due to specific requirements to target both Pocket PC 2003 (limited browser) and Windows Mobile 5.0 platforms. Also custom development was needed for integrating the Optima's WMS solution to the client's CRM solution.</p> <p>I've developed end-to-end the project, starting with the business analysis, the architecture and design of the chosen solution, and the actual implementation of the WMS product.</p>
Used technologies:	.NET 3.5, ASP.NET, jScript, Microsoft Sql Server 2008
Role in project:	System Architect, System Development

Period:	2009/01 - 2009/06
Client:	<u>Interbrands Romania</u> (outsourced by <u>Optima Group</u>)
Project Description:	<p>Development of a real-time stock confirmation service to be used by sales agents in the field (the agents are using PDAs to gather stock orders). An application built upon .NET Compact Framework was the client for the service. The service was accessing the Oracle servers to handle the stock orders.</p> <p>I've extensively worked on the analysis and design of the solution, prior to development phase.</p> <p>Due to the PDA's GPRS slow networking, the communication between the client (PDA, .NET CF) and the web service required implementing a custom reliable messaging mechanism. Also, a custom SOAP extension was implemented, that offered three needed features (configurable both client and server side): message archiving, encryption and logging.</p> <p>I've also implemented a custom automated test tool and created a benchmarks report for the Stock Confirmation Service.</p>
Used technologies:	.NET 2.0, .NET Compact Framework 2.0, Web Services, Oracle 9i
Role in project:	System Development, System Design

Period:	2007/11 - 2008/08
Client:	<u>Interwoven - Autonomy</u> (when employed at <u>Gemini Solutions</u>)
Project Description:	Development of <u>Scrittura WordML</u> , the client-side of the Interwoven's Scrittura Platform - a document management solution used in the finance trading sector.

	<p>I was responsible with upgrading the existing template editor module to Office Word 2003 and Office Word 2007 add-ins.</p> <p>The 2003 Add-In was created with VSTO SE, using Word 2003 document customization and custom xml schemas. The 2007 Add-In was created with VSTO SE, targeting the Word 2007's new features – Ribbon, Content Controls, custom XML parts, building blocks.</p> <p>For the Word 2007 version, I've extensively worked on research and analysis over the new Office 2007 platform, and also on designing a new template editor with extra capabilities – like client-side preview, new template controls (tables, nested repeaters).</p> <p>The template editor was also heavily interacting with other Scrittura's server-side components (Java-based), like DocManager and DocGenerator.</p>
Used technologies:	.NET 2.0, VSTO SE (Visual Studio Tools for Office, Second Edition), WebDAV
Role in project:	System Development, System Design

Period:	2006/10 - 2007/04
Client:	Pure Digital Technologies (when employed at Gemini Solutions)
Project Description:	<p>Development of a framework for instrumenting .NET applications, which in the end targeted the resulted monitoring output to the MOM platform (Microsoft Operations Management, nowadays SCOM – System Center Operations Manager).</p> <p>Prior to development, I was doing the research, analysis and documentation work in the creation of the instrumentation framework solution.</p> <p>The development was made by using COM technology combined with Win32 IPC synchronization mechanisms for implementing a custom WMI provider, MOM SDK, .NET platform and Win32Api wrappers for the rest of the functionalities.</p> <p>I've also worked on integrating the instrumentation framework for several in-production modules, and also on implementing Automated Test solutions in order to monitor the performance and throughput of these modules.</p>
Used technologies:	.NET 1.1, C++ (COM), WMI platform, MOM (SCOM) SDK, Win32 IPC
Role in project:	Research, System Architect, System Development

Period:	2005/11 - 2006/06
Client:	RATB Bucharest (when employed at UTI - IT & C Division)
Project Description:	Development of a communication infrastructure for a large ticketing system project with the local transport company (RATB). The communication infrastructure was the linkage of the front-end equipments with the back-end servers. It was represented by a web of WSE 3.0 services, designed in a SOA

	<p>manner.</p> <p>I've worked both on the SOA design and on the web service implementations. Technical issues encountered: reliable messaging, obtaining a good processing load, security, creating a generic implementation for the web services, creating an intelligent conversation between services.</p> <p>I've also worked on designing and implementing a "smart client" application kit (cache, update blocks and other target project specific features), and also on the internal framework development which was used as the development base for this project.</p> <p>I also had team leader responsibilities for a part of the team handling the SOA implementation.</p>
Used technologies:	.NET 2.0, WSE 3.0, SOA, Sql Server 2000, Oracle 9i, Microsoft Application Blocks
Role in project:	System Development, System Design, Team leader responsibilities (for a part of the development team)

Period:	2003/08 - 2004/03
Client:	<u>Medicover Poland (when employed at TotalSoft)</u>
Project Description:	<p>Development of a distributed application in the medical business. The application itself was handling all the business inside a medical center, to name some aspects: handling patient lists, periodical appointments, laboratory analysis, analysis results, HR management for the personal working in the medical center.</p> <p>I've worked on implementing parts of a framework that the rest of the development process was depending upon, then on implementing certain modules part of the global application and after the first release on bug solving and software updates for the entire application.</p> <p>During development, I was also responsible with programming a fast-speed scanner for automated reading of the analysis results (the machine was capable of handling around 100 papers/minute).</p>
Used technologies:	.NET 1.1, C#, WinForms, Remoting, Microsoft SQL Server 2000
Role in project:	System Development