

TOMASZ GIL
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Software Consultant

PROFESSIONAL SUMMARY:

I am a seasoned Software and Data Engineer and Architect with over 20 years of experience working both with agile teams and as a sole contributor. My expertise is in architecture, design, and development of software and data — systems and applications. As a software technologist I can clearly articulate where technology and programming effort meet to contribute to the realization of the project. I can tackle technological and algorithmic problems that exceed the capabilities of typical developers — examples provided upon request.

EXPERTISE:

- Data modeling and schema design
- Relational databases and SQL programming
- Application code structure and architecture
- Concurrency and synchronization
- Numerical algorithms

TECHNOLOGIES:

- Java: Java Open Source, Maven/Ant/Eclipse, Spring Framework, JMX, JDBC, JPA
- .NET: C#, ASP.NET Core backend with Microsoft tech, EntityFramework
- Application architecture: Domain-Driven-Design, Volatility-Based-Decomposition, microservices, message queuing, object-oriented and functional programming
 - Relational Data stores: PostgreSQL, SQL Server, Oracle, MySQL, replication and bulk data operations, Change-Data-Capture (CDC)
 - Data modeling and programming: ER, SQL, ORM
 - Data warehousing: Databricks, Snowflake
 - Non-relational Data stores: Redis, Couchbase, Cassandra, Elastic Search and ELK, Kafka, Zookeeper
- Cloud: Azure, AWS, Docker, Azure ServiceBus, Azure Data Factory, Azure Blob Storage
- Other platforms: NodeJS/Javascript/Typescript/ExpressJS, Django/Python
- Web/API application technologies: MVC, Jersey REST, JavaScript, jQuery, HTML, HTML5, SVG, XML, XSLT
- Other: UNIX shell, TCP/IP, HTTP, tcpdump/wireshark, C/C++, git, CVS, subversion

PROFESSIONAL EXPERIENCE:

Project	Technologies	Role	Client/Product
Launch Consulting 2020-2024			
Sr Software Engineer			
Implement a .NET application aimed at large data transfers	Azure Data Factory, Service Bus, Blob Storage and SQL databases, .NET, SQL		Vizient
Help in implementing new VBD-based .NET multi-component platform supporting multi-tenancy for eye clinics and eye care services,	.NET		Eyefinity
Designing a hybrid database system combining snapshots, replication and added SQL schema objects. Implemented .NET components interfacing to Cloud resources	Azure ServiceBus and SQL Server DB. CDC and Kafka-Connect, .NET, SQL. Construction industry DB schemas such as Vista/Viewpoint, HeavyBid, Cosential	Lead data engineer and data modeler	Teichert InQuarry
Logging of HTTP traffic with request/response content to database for a backend system supporting eye clinics, exams, eye glass orders	Java/Apache Camel	Tech Lead	Eyefinity
Backend architecture and implementation (based on Domain Driven Design) of a system collecting visitor information with focus on COVID	Java/Spring/Spring Data	Tech Lead	deCurtis
Help solve API errors and Auth problems in backend systems	Java/JPA	Tech Lead	deCurtis
Help architect solution to data synchronization for cruise ship personnel	Architecture	Tech Lead	deCurtis
Interface of a Java-based backend to 3rd-party C++ based face recognition library	Java/C++	Tech Lead	deCurtis
Level 11 Consulting 2016-2020			
Sr Software Engineer			
Help solve API errors and Auth problems in backend systems	Java/JPA, Identity Management systems		deCurtis

Resume June 2024

geometric problems: division of space into rooms, driver for printing/engraving under manufacturing pipeline	Java/Python		Princess Cruises, deCurtis
large-scale distributed location tracking system - diagnostics and monitoring of software and devices	Java, Kafka, Docker, Apache Storm		Princess Cruises
Software for cruise ships to interface to new devices (e.g. marine GPS using NMEA) and 3rd party systems (e.g. weather forecasts)	Java, Kafka, Zookeeper, Elasticsearch, Couchbase	Tech Lead	Princess Cruises
Integration with 3rd party ticketing provider for an amusement park venture	Java, Architecture, AuthZ, ticketing APIs, Identity Management systems		American Dream
Conceived and implemented a generic content management system (CMS) for Orchestr8 based on Django and Java	Java, Python/Django, AuthZ	Tech Lead	American Dream
Constructing REST APIs	Python/Django, Java, ExpressJS, JSON	Tech Lead	internal
SoftSouce Consulting 2014-2016			
Software Architect			
Architected and designed a complete system of distributed diagnostic capture and storage	.NET, SQL, SQL Server	Tech Lead	Game Company
Identified thousands of independently reported client session diagnostics and correlating them with server-side logs	.NET, SQL	Tech Lead	Game Company
Implemented accurate time estimation in client systems	.NET, C++, Linux	Tech Lead	Game Company
Helped to implement version 2.0 platform for a startup	Java, JPA/Hibernate, JBoss/Wildfly, MySQL	Tech Lead	Tuebora
Architected and designed an application-level framework that allowed the user to extend and customize the available persistent entity. Implemented a dynamic type management system	Java, JPA, Java Compiler, Javascript/JSON	Tech Lead	Tuebora
Designed and developed a subsystem that generated and compiled Java code extensions and executed user-specified JavaScript code inside the Java	Java	Tech Lead	Tuebora

application			
Evaluated MySQL and Cassandra as datastores	Java	Architecture	Tuebora
Nuance Communications (initially Tweddle Group) 2010-2014			
Lead Software Engineer			
Designed and developed middle tier Java-based software platform supporting the client systems on wireless handheld and vehicle-based devices through server API, brokering services from 3rd party providers	Java, XML	Tech Lead	Toyota (Entune), Lexus(Enform) products, and other auto makers
Maintaining API as SDK with consistent documentation for device manufacturers	Java, Javadoc	Tech Lead	
initiated numerous architectural and technological improvements in the software: use of JAXB and XML schema for API definition, use of JAX-RS REST Jersey framework, low-level methodology for interacting with Oracle database, and annotation driven transactions	Java, XML, XSD, XSL, JAXB, JDBC, Oracle	Tech Lead	auto companies
Architected, designed, and developed interaction pipeline with voice processing services from audio and grammar to semantic understanding	Java	Tech Lead	
Architected and prototyped a distributed logging system using message queues as intermediate storage	Java, Redis, ApacheMQ	Architecture	
Mentored developers in architecturally appropriate and effective use of the Spring framework and dependency injection.	Java, SpringFramework	Tech Lead	
Created and maintained critical components interfacing to automakers APIs	Java, MQ, JMS, SFTP, Oracle DB	Tech Lead	auto companies
Marchex 2008-2010			
Sr Software Engineer			
Data modeling and implementation of advertising campaigns and their metrics	Java, SQL	Tech Lead	

Implemented algorithms driving advertising campaigns using optimal control	Java, SQL	Tech Lead	
CDG/Boeing 2006-2008			
Sr Software Engineer			
digital airplane documentation - airplane parts for 787	Java, SQL, TerraXML search		Boeing 787
Batch publishing of airplane documentation and maintenance bulletins. Long running transactions with savepoints; DB updates needed to be coordinated with search index updates	Java, SQL, Oracle, TerraXML search		Boeing 787
Sproqit 2005-2006			
Sr Software Engineer			
Development of backend support for early smartphone apps	C/C++, Windows SDK, PDAs: Palm and Blackberry		Sproqit SDK
Amazon 2003-2005			
Sr Software Engineer			
external fulfillment systems	C/C++, Perl, SQL, Oracle		
complex high-volume batch processing	ops using system level tools		
Graphon/Exodus/ConnectSoft 1995-2001			
Sr Software Engineer			
remote access to Windows NT apps, precursor of Remote Desktop (RDP)	C++, Java, Windows NT SDK and kernel		NTerprise, GoGlobal
design and implementation of complex layered remote access protocol - inspired by Corba/DCOM	C++, Java		NTerprise, GoGlobal

EDUCATION, CERTIFICATIONS, PATENTS:

Indiana University 1989 - PhD, Physics, Chemistry, Applied Math - Specializing in theoretical quantum physics and applied mathematics

N. Copernicus University 1981 - M. Sc., Physics - Specializing in theoretical quantum physics with a large component of applied mathematics

Patent: Tweddle Group, involving wireless software and automotive technology 2012

Certifications: Azure Fundamentals

Work authorization: Citizen of US, EU/Poland