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IT Related Experience

Senior experience in the IT (Design and develop)

Certification(s)

Computer Sciences – Diploma (Peru) 1985

Bootstrap 4 from Scratch – Udemy (09/2020)

Advance ASP.NET Core 3.1 Razor Pages – Udemy (2021)

Bootstrap 4.0 / CSS Courses – On-line Certificates (01/2021)

JavaScripts/jQuery – LinkedIn Academy (01/2021)

SQL Server Administration Part 1 – Udemy (11/2022)

Power Apps Complete Guide – Udemy (02/2023)

Master Bootstrap 5 – Udemy (03/2023)

Carleton University – Coding bootcamp (01/2024)

LinkedIN Profile

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Incorporation

OntarioTeck VBA Developers

Updated On

11 Mar 2025

PROFILE

Mr. Gustavo Miller, a Systems Analyst, Computer Programmer and Database Modeler with extensive experience in designing and developing business solutions / Databases.

- Designed and coded new Windows desktop applications, as well as Office Solutions in different Microsoft Office Suites.
- Desktop applications mainly in Visual Basic and C# using different .NET framework versions, web-based applications using C#, ASP.NET Razor Pages (Model-View-Controller), Microsoft Identity (Authentication). Open-source Rapid Development Framework in CakePHP (MVC). HTML, Bootstrap 4, CSS (Bootstrap), JavaScript/JScript, Json/XML files.
- Modeled and designed databases using Microsoft Access, SQL Server (SSMS) and MySQL (Oracle). Tables, relationships, triggers and T-SQL scripts. Developed ASP.Net applications with Code-first approach using Entity framework (EF) and migrations.
- Produced business and technical specifications, database models, UML diagrams, use cases and other pertinent documentation. Reversed engineer, document and migrate legacy applications.
- Worked as a team member or alone, on-site or remotely. Nowadays I work remotely only, but can accommodate a hybrid schedule.
- VBA Needs? No problem, the source of this resume contains VBA code which allows me to maintain the resume fast and easy.

PROFESSIONAL EXPERIENCE

Project # 1

[Department of National Defense \(DND\)](#)

Senior Business Analyst / Database Modeler

[August 2023 – January 2025](#)

Worked in the Director Application Management, Integration and Innovation department to assist them in their Developing needs. During my contract we were working in delivering enhancements to their existing Quality Assurance Information System (QAIS) web application.

Application is considered legacy as it was developed in ASP.Net 4.0 MVC with Azure cloud databases.

Current Tasks include:

- Design existing SQL Database; SQL User (Login/User permissions), tables, fields, indexes, relationships and data constraints. Implement stored procedures.
- Build complex TSQL scripts to deliver changes to Staging and Production environments.
- Design application using .NET 4.0 – in Model View Controller (MVC) pattern. Multiple project Implementation (separation of Concerns).
- Entity Framework (EF) Core Migration – Database first. Maintain Table and View models.
- Manage Site: version control DevOps, publish new changes, maintain database (backup database).
- Implement generation of Word/Excel using Office Open XML (OOXML) for word-processing documents, and spreadsheets. Implement a Macro-enabled Excel application to retrieve the QAIS database data dictionary, as well as Auditing information (Electronic Checklist).

Project # 2

[OntarioTECK](#)

Senior Business Analyst / Database Modeler

[July 2023 – August 2023](#)

While I was in between contracts, I decided to update a couple of websites I have developed and maintain over the years; mainly to New Connections Ministries. Developed using ASP.net MVC 7. Website is hosted in Windows Server 2016 – IIS10 with SQL Server 2019.

- [New Connections Ministries](#) – Implement interface in Microsoft Access to update dynamic information. Use DNS-Less connections to mask the connection string and tables.
- Implement SQL Email to report errors.
- Add new Intake Application form.
- Implement OpenXML to produce their Intake document

In these applications I am using different techniques to access information stored in SQL Server 2019 – Windows Server 2016 + IIS10.

Note: I am a member of the board of Directors at New Connections Ministries. Member of the ministry for the past 23 years.

Project # 3

[Shared Services Canada - SSC](#)

Senior Business Analyst / Database Modeler

[February 2023 – July 2023](#)

Recently joined their Project Management Center of Excellence group to assist them in building a new interface for their application – Lessons Learned Application. PMCE helps all government departments in their projects regarding of their process stages in collecting experience information and document them in their cloud database. The contract due to budgets was terminated.

The Lessons Learned are currently stored in an Excel file for local and internal process. The information is not accessible to other departments nor through the cloud. The goal in this contract was to migrate their information into SQL Server on Azure and make it available to front-end application.

Update 2023-05-01: Data has already been migrated to Azure SQL Cloud Server. Tools used during migration, Excel and Microsoft Access.

Update 2023-06-09: User interface developed in Microsoft PowerApps and Microsoft Flow.

Update 2023-06-26: Create new Power BI Report to filter the Lessons Learned – interface implemented in English / French.

Tasks Performed:

- Review existing process. Prepare documentation, generate diagrams and use cases.
- Design a new SQL Database; tables, fields, indexes, relationships and data constraints. Implement stored procedures, scalar/tables UDF.
- Create a prototype for the Lessons Learned Master Database application in Microsoft PowerApps, stored procedures created using Microsoft Flow.
- Connect to Azure SQL Server using Microsoft Flow 365.
- Design and implement Microsoft Access Maintenance database front end. Use DNS-Less connection to access information stored in a SQL Server. Maintain Lookup and Satellite information (Departments, Categories, Project Types and such tables).

Project # 4

[New Connections Ministries - NCM](#)

Systems Analyst / Web Developer / Database Modeler

Board of Directors member

[September 2022 – January 2023](#)

NCM website was originally designed as static pages written in HTML. Later on, application was upgraded to ASP.NET with no database back-engine.

NCM Application was recently revamped to ASP.NET Core Razor pages in C# using bootstrap 4.0 as CSS platform. Back engine designed in SQL Server with ASP.NET Core Microsoft Identity modules. Access SQL Server database using Repository and Unit of Work pattern, in a multi-layer architecture project.

2022 - We are implementing new sections and services to the New Connections Ministries website. The admin tool will be developed using Microsoft Access and SQL Server since only 1 or 2 people will be using it.

06/26/2023 – Implement Logging to File/Database using NLog. NLog is very easy to implement (well, unless you have no experience), once installed and configured it makes it easy to log the errors into our SQL Server database.

Tasks Performed:

- Design SQL Database; SQL User (Login/User permissions), tables, fields, indexes, relationships and data constraints. Implement stored procedures, scalar/tables UDF.
- Design application using .NET Core Razor pages – Model View Controller (MVC) pattern. Multiple project Implementation (separation of Concerns).
- Entity Framework (EF) Core Migration – Database first. Implement ASP.Net Core Identity for Authentication and Authorization. Update further changes via migrations. Use multiple DbContext.
- Implement Repository and Unit of Work Pattern.
- Migrate the application from IONOS webhosting to our own hosting server.
- Install and configure IIS. Create application pools, redirection and permissions. Register AAA records with domain hosting.
- Install Microsoft SQL Server 2019; migrate NCM database model and implement new features.
- Build Management application to allow admin users to maintain website contents. Interface implemented using Microsoft Access.
- Original website was designed as static HTML pages. NOTE: This is no longer active.
- Implement Microsoft Access for data maintenance – lookup tables. DNS-Less connection (VBA).
- Manage Site: version control DevOps, publish new changes, maintain database (backup database).

Project # 5

[Share Services Canada \(SSC\)](#)

Systems Analyst / Senior Developer / Database Modeler

[March 2021 – September 2022](#)

Join their Network and Security Services – Business Intake Management and Service Delivery Coordination group to redesign and improve their Business Request Costing process: BR Costing. Original process was developed in Excel manually gathering information from different SDM (Service Data Management).

Moved to a separate department (same department) to review their existing Networking Tracking Sheets

Network Tracking Sheet Spreadsheets converted into a Local Database using Microsoft Access aiming to move into Microsoft SQL Server. The database went from Microsoft Access → Microsoft SharePoint / Microsoft SQL Server to Oracle MySQL Server. I am currently coding in PHP -using CakePHP 4.0, migrating database from SQL Server to MySQL Naming and conventions, and merging to existing SDI system.

Migrated Tracking Sheet Spreadsheets into new web-based application developed in PHP (CakePHP Framework). Back-engine in MySQL Oracle – located in Microsoft Clouds. Version Control handled via DevOps.

Tasks Performed:

- Meet with client daily to review existing requirements – scrum meetings.
- Build database models for BR Costing and Networking Trackers, review weak areas and areas that require enhancement. Using Microsoft Access 365 as proof-of-concept.

- Retrieve data programmatically from JIRA Enterprise database. Update local database Access / SQL Server.
- Upsize from Microsoft Access to Microsoft SQL Server 2012-2016; redesign database model to fit new requirements
- Normalize SQL Database; tables, indexes, relationships and data constraints. Implement stored procedures, scalar/tables UDF.
- Migrate Microsoft Access to Microsoft SharePoint – use as SharePoint Lists.
- Migrate Microsoft SQL Server to Oracle MySQL. Change fields/tables naming conventions to fit into CakePHP Model View Controller (MVC) environment.
- Develop BR Costing in Microsoft Access - Visual Basic for application. Integration to Excel and Microsoft SharePoint.
- Currently migrating Excel Network Tracking Sheets (VB) into new SDI Web-Application PHP platform developed using CakePHP framework.
- Produce High/Low-level documentation; UML diagrams, Use Cases and flowcharts.

Project # 6

Department of National Defense (DND)

Systems Analyst / Senior Developer / Database Administrator

[February 2017 – February 2021](#)

[March 2022 – September 2022](#) (Part-time Contract)

Join their COS/VCDS Administration department to redesign their existing Business Planning database. Their tool was developed initially in Microsoft Access using native Jet Engine and VBA (Visual Basic for Applications). This tool is used by their different organizations -within VCDS, to control and track their funds allocations for their corresponding Tasks/Activities and Sub-activities.

The database was upgraded to SQL Server 2012 in 2019. Front end application was kept in Microsoft Access, but 90% of their Business Rules were implemented at Server-side using Stored Procedures, Functions and Triggers, to do most of the work and relieve Client-side interface. Implement new ActiveX controls and maximize Office Automation features (Excel/Word/PowerPoint/Outlook).

2022 Requirements: DGMEC Pilot Product Performance Database. Customer requires changes in the interfaces; make it more flexible. Implement the use of the standard Ribbon object; introduce the use of XML for configuration purposes. Client requires embedded help using HTML/JavaScript and Web controls.

Tasks Performed:

- Meet with client to review existing model; review weak areas and areas that require enhancement. VCDS required a refactoring of their database. DGMEC migrate Access database to SharePoint as Table Lists components.
- Upsize from Microsoft Access to Microsoft SQL Server 2012-2016; redesign database model to fit new requirements. DGMEC migrate database from Access to SharePoint Table Lists. Migrate existing data to SP, complicated mechanism to recreate same primary keys.
- Normalize SQL Database; tables, indexes, relationships and data constraints. Implement stored procedures, scalar/tables UDF.
- Separate tables and code; use connection string to retrieve data.
- Implement Ribbons and XML scripts; implement dynamic call-backs to manage options selected and availability/visibility of commands

- Revamp VCDS Interface (still Microsoft) and connect to SQL Server using DNS-less connection strings.
- Implement XML scripts. Ribbon UI, Constants and defaults. Create XML files locally on application folder. Used to edit XML: Microsoft Expressions Web, and Visual Studio 2017.
- Design/develop Excel/Word macro templates for reporting and for data-entry mode. Connect to SQL Server DNS-Less via macros. Exchange information between Office Applications and SQL Server.

Project # 7

Transport Canada – Aviation Security (Ottawa – Ontario)

Systems Analyst / Senior Developer

December 2016 to January 2017

Continue with Transport Canada Aviation Security Operations team to develop the Airport Security Risk Management Tool. Complete and enhance existing application.

Tasks Performed:

- Implement mechanism to update the Aerodromes Workbook without having to extract their existing data –classified information. This was accomplished by using the **VBIDE** in order to access and modify the Visual Basic for Applications VBA project.
- Fix small bugs and implement new features to the several existing Wizards.
- Implement French reports in Microsoft Word.
- Enhance and separate Custom XML Parts. Implement forms (MS Forms 2.0) to maintain information.
- Redesign CustomUI interface (Excel Ribbon); Implement menu controls. Implement Ribbon call-backs in VBA.
- Office Automation: Exchange information from Excel into Word and PowerPoint. Implement macro-enabled templates – with digital signatures (security purposes).
- Extensive XML design; share structured information. Use XML Schemas to format information to be viewed using internet browser.
- Implement Memory-dataset for sorting and filtering information.
- Implement mechanism to update code in existing XLAM AddIN and XLSM main workbooks without disrupting client’s sensitive information. This is accomplished by using Microsoft VBA Extensibility 5.3 reference to the VBIDE Project, which allows us to replace the code at Runtime.

TECHNICAL SUMMARY

Languages (from current)	Visual Basic for Application - VBA 6.0
C# 10.00	VB Scripting
Visual Basic	VSTO Office Automation 2007/2010
JavaScripts	
	<u>Tools/Environments</u>
Databases	Visual Studio 2005 thru 2022
Microsoft Access 97 → 2019	Crystal Reports VS 2008 / 2005
Microsoft SQL Server 2003 → 2019	Visual Studio Team Foundation Server 2010
Microsoft Azure Cloud Platform	Git/GitHub/GitBash
Microsoft Power Apps	Azure DevOps
Microsoft Flow 365	
Support	Techniques
Microsoft Windows 7 /95 / 2000 / NT / XP	Object Oriented Analysis and Design
Microsoft Office Suite 2000/2003/2007/2010	Structured Analysis and Design
	Database Modelling
	Entity Framework / Object Models
	EF Code first - Migrations
Web Development	
ASP 3.0 Classic	www.newconnections-ministries.org
ASP.Net Core 3/5/6/7 MVC Razor	http://miller-hs.com
ASP.Net Core 5 Razor	http://kompras.ca
HTML, CSS, Javascripts	