

ROBERT F. TROSS
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MY SITE <https://www.vennum.com>

SUMMARY Well rounded DevOps Engineer and Data Scientist with experience in Dot Net Development, DevOps Deployment (with Jenkins), Big Data (with Hadoop) and . Creative problems solver with the ability to create one of a kind solutions in the realms of DevOps, Big Data and Cloud Services. Effective communicator with the ability to explain complex computer concepts to non-technical and technical individuals alike.

EDUCATION **Yale University, New Haven, CT** January 2003 – May 2007
Bachelors of Science in Economics May 2007
Bachelors of Science in Mechanical Engineering May 2007
GPA 3.14

HADOOP TECHNOLOGIES Amabari Ranger w/ Tag Based Policies Spark
Apache Atlas Spark2
HBase Sqoop Zeppelin Notebooks
Oozie Kafka Hive

DATABASE/ML TECHNOLOGIES MSSQL 2000-2014 Hive MySQL
Spark & Spark2 HBase Oracle
Databricks RedGate Dask Distributed
Nvidia.Spark.Rapids Dask MLFlow
ai.rapids.cudf XGBoost MLlib
Azure ML Studio SnowFlake

MICROSOFT TECHNOLOGIES Visual Studio Code Dot Net Frameworks 2.0-4.7.3 Web API
Visual Studio VB.NET PowerBI
C#.NET RESTful Services Xamarin

SYSTEMS Windows Server 2000-2019 Linux Unix
VMWare AWS Jenkins
Azure Azure DevOps 2019 Macintosh

OTHER CODING LANGUAGES Terraform SQL HTML5
Powershell C XML
Powershell 7 Azure CLI JAVA
Objective-C Bash Shell Python
JQuery ServiceNow ServiceNow APIs

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EXPERIENCE

Senior Solutions Specialist, Deloitte LLP

March 2022 – Present

- Developed an end-to-end AI Model and system for Dependent Eligibility Verification. There were two AI models used for this project. Both were written in Azure Form Recognizer. One AI model was for Birth Certificates the other was for 1099s that were used for eligibility verification. The back end ran as a python script in Lambda and interfaced with the primary system as a system of record (Service Now).
- Did extensive work with Lambda functions including mutli-treading using delayed and Pipes. This work was related to creating RESTful web service to be consumed by UiPath Robot (Automation Code). This work was specifically related to optimizing OCR work done with Google Text Annotations.
- Created containerized python RESTful web services for used with Google Cloud Run as part of the Texas Project.
- Created Terraform Modules for deploying architecture to AWS, GCP and Azure. Including EKS, AKS, Dataproc, Data Fusion, Azure Cognitive Services, Cloud Functions, Cloud Run, App Engine, Cloud SQL, RDBMS, Azure SQL, EC2 Instances.
- Created Terraform deployment script to deploy and configure a UiPath Orchestrator in AWS as well as the UiPath Attended and Unattended Robots.
- Worked directly on UiPath robot code to automate returned mail for the State of Montana Snap program including the OCR Lambda functions to read the returned mail.

Assistant Vice President, First Citizens Bank (CIT Bank)

September 2019 – March 2022

- Created Machine Learning Experiment for feature selection related to credit risk modeling.
- Created Databricks clusters that leveraged Dask Distributed Clusters along with XGBoost ML processing libraries for Credit Risk Modeling. Multiple methodologies and technological approaches were tried in optimizing this solution. We had a version of the model which used Spark2 to run the ml project using scikit learn this was combined with the Invidia Spark Rapids libraries to optimize the ML experiment from a 2 day process to an 8 hour process for feature selection.
- Created feature selection code in Databricks that utilized Invidia.Spark.Rapids libraries.
- Integrated Hadoop with Active Directory, Setup security policies including data masking and access control using Ranger and Atlas.
- Created a Mac DotNet Core web service to build Cordova Applications
- Onboarded multiple applications to Azure DevOps (Mobile Apps, SQL Deployments, Dot Net Core Deployments, Azure Terraform Deployments, and more
- Wrote custom WebAPI app in DotNet core to build Cordova Based mobile apps remotely. (Build as a Service)
- Created Terraform Modules for deploying cloud infrastructure to Azure including but not limited to Storage Accounts, Databricks Environments, Azure ML Studio, Azure Synapse Analytics, Azure SQL, VMs, Azure Data Factory... Including VNet based secure versions.

Software Engineer, Fortegra Financial

July 2013 – May 2018

- Prototyped and built out a Hadoop cluster using Ambari in AWS as well as on physical machines running over HTTPs.
- Prototyped and created instruction for deploying a Hadoop Cluster to AWS and in a local configuration.
- Created data analytics in OBIEE that ran against the Ambari cluster using both Hive and Spark ODBC connectors.
- Integrated Hadoop with Active Directory, Setup security policies including data masking and access control using Ranger and Atlas.
- Scripted data warehousing using Sqoop. Pulling from environments varying from varying environments into ORC tables. As well as scripting beeline queries to clear and move data.
- Built reporting using Spark and Spark2 queries in Zeppelin.
- Designed and implemented Continuous Integration platform using CruiseControl.Net (2014). Redesign to use Jenkins (2015-Present).

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- Created PowerShell scripts for our Jenkins deployment engine that allowed IIS sites to be created on deployment, including HTTPS certificate binding.
- Setup load balancing with ARR for our production environment.
- Migrated code from Windows 2003 to 2008 boxes
- Developed Multi-Threaded Restful Services using Microsoft Web API.
- Developed Multi-Threaded WCF Services
- Deployed the iOS applications to TestFlight. (Managed TestFlight Account as well as iOS developer accounts)
- Developed three app for both Android and iPhone for UMC, CCC, and AutoKnight. The Android version supported GingerBread to JellyBean. The iOS versions supported iOS 6+.
- Updated mobile app to use Google Maps V2 instead of V1 including setting up API Keys that linked to the Android application signing key.
- Deployed the Android applications to TestFlight.
- Developed WCF Service for credit card processing through CyberSource. The WCF Service wrapper used a JSON RESTful binding with a service reference possible for the constructing the DTOs. WCF 3.0 on DotNet 4.5.
- Built WCF Service tests using SOAP UI for the credit card processing WCF service and for the services that ran the mobile applications.
- Wrote documentation on the use and implementation of URLScan
- Built database projects using RedGate tools. Synchronized Production and the test environment using the RedGate DB project.
- Worked on FCCMS V2 Rewrite project. This project was an MVP (Model View Presenter) project. Taught co-workers how to implement a new webpage in the MVP architecture.
- Created documentation on the MVP architecture.
- Designed and implemented an eLearning application we called Fortegra Learning Academy (an MVC application), including video streaming with iPad and iPhone compatibility using a generic handler and HTML5 video.
- Created DTOs for integration between FCCMS systems and Oracle AR. (Also generated XML version using SQL FOR XML statement)
- Was responsible for migrating websites, services, scheduled tasks and other related software off of old Windows 2003 to Windows 2008 boxes.
- Configured IIS 7, 7.5, 8 including the URL Rewrite Module (ARR) in order to load balance the systems at Fortegra.
- Setup shared config for IIS to use with NLB. Configured NLB for ARR servers
- Configured Application Initialization with IIS 7.5 & 8 for the servers in our server farms.

Software Engineer/Architect/Contractor, LPS

Feb 2013 –July 2013

- Created ping utility to ping net.tcp endpoint for automated smoke tester using Visual Studio 2010 and DotNet Framework 4.0
- Worked on MOCK Service and developed binary serialization and deserialization methods.
- Created MOCK Service XSLT transform files.
- Created database tables and stored procedures for the MOCK Service. The stored procedures created XML data (SQL Server 2008)
- Worked directly on the MOCK Service which was a WCF service over net.tcp using Visual Studio 2010 and DotNet Framework 4.0.
- Used Dynamic PDF to generate a PDF on the fly for the claims account balance and tied it into the page using KnockOut and C# (Visual Studio 2012, DotNet Framework 4.5, SQL Server 2012)
- Worked with IIS (7.5) Application Request Routing (ARR). Created a solution that used ARR to re-route packets for the LWD view.
- Worked with and installed IIS URLScan.
- Setup compression for RESTful WCF Services using a custom GZip binding.
- Worked with IIS (7.5) Caching (Both regular IIS caching and ARR caching).
- Created custom JavaScripts.

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- Created enterprise class utility the Claims Loan Boarder using Visual Studio 2012 and DotNet Framework 4.5

Software Engineer/IT Consultant, Accenture

Feb 2010 – July 2011

- Developed software for insurance claims including but not limited to software pertaining to FNOL Snapshot Report (A report at the end of a First Notice Of Loss which is was generated using an XSLT transform used to generate an HTML output and auto attach it to the file notes UI) using XSLT, C#, Visual Studio 2010 and DotNet Framwork 4.0
- Worked to develop the insurance claims software for release 9.0 and 9.1 in VB.Net using Visual Studio 2008, DotNet Framework 3.5 and SQL Server 2008.
- In release 10.0 worked through the entire project lifecycle to convert the application from VB.Net to C#.Net.
- Enhanced my skill set during my own free time to include skills including IIS 7, IIS Smooth Streaming, Database Streaming, the Skype API, Database File Streaming, and XAML.
- Became a lead around portlet development.
- Worked with MS-SQL Server 2008.
- Designed macros that saved the company time and money in both development and design efforts by eliminating human error in the design process and auto generating code from the design document themselves.
- Developed an application that would allow texting from the database automatically using the Skype API.

PROFESSIONAL
DEVELOPMENT

Microsoft Certifications.

- Microsoft Certified Azure Database Administrator
- Microsoft Certified Azure Data Engineer
- Microsoft Certified Azure Data Scientist
- Microsoft Certified Azure Architect Expert
- Databricks Certified Python Developer
- Hasihcorp Certified Terraform Developer
- Azure ML Associate

Extensive Experience with Crypto Currency (Coding and Trading)

- Stick Mining with ASIC Stick miners
- Mining with Bitmain Antminer S7-S11
- Mining with Avalon7 Miner (Custom built CGMiner implementation)
- Ethereum with multiple GPUs

Worked for Infosys in Mysore, India for six months.

- Designed and implemented software in C that stored travel information in a flat file.
- Created a travel booking website in ASP.NET (The business logic was in C#) that interfaced using ADO.NET with MSSQL 2000 Server

Completed Udaicy Nanodegree in AI Programming with Python

- <https://confirm.udacity.com/ODU32SES>