

# Tim Saldana

PO Box 1273, Austin, Texas 78767

(512) 970-2884

[saldana@texas.net](mailto:saldana@texas.net)

**Geographic Information Systems Developer with 20+ years of experience in GIS and application development. Expert and highly familiar with a wide variety of programming languages, database systems and operating system software. Possess a Master of Applied Geography Degree in Geographic Information Systems.**

## **TECHNICAL SKILLS**

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**GIS:** Over 10 years' experience with ESRI products including ArcGIS Desktop, ArcGIS Server, ArcSDE, data conversion using Feature Manipulation Engine, Trimble GPS.

**Programming:** Over 10 years' experience with application development including Web Mapping, JavaScript, Flex, Python, Shell, Groovy, Java, XML, YAML, JSON. 5+ years' development team lead

**Database:** over 10 years' experience with MS SQL Server, ESRI ArcSDE; 1 year experience with Postgres, PostGIS, Hive, Hadoop.

**Analysis:** over 10 years' experience with geospatial analysis using analog and digital methodologies, image processing, cartography and map design.

## **Professional Experience**

**Apple via Adecco September 2015 – Present**

**Maps Data Test Engineer, Austin, TX**

Geometry Subject Matter Expert advising on proper usage of GIS analysis in data validation processes.

Validate and normalize large datasets from multiple sources into the global data warehouse. Interpret data specifications and write automated tests (Groovy) that verify data integrity. Use PostGIS spatial functions to validate and normalize large datasets from multiple sources into the global data warehouse. Write and interpret complex data queries in Hive/Hadoop for manual validation. Navigate JSON documents to configure JSON-path parsing to retrieve JSON objects. Work effectively in a Unix environment, managing code in source control (Git), code review and approval workflow.

## **Accomplishments**

- Lead daily /weekly priority meetings for developers and facilitate resolution of issues facing the Data Assertions team.
- Develop and maintain documentation for code standards and process management.
- Defined global functions for retrieval of geometry entities from JSON
- Developed Hive queries for standardized error reporting on job runs
- Interpret and clarify specifications to provide additional information to development teams

**Parsons September 2009 - September 2015**

**GIS Program Manager, Austin, Texas**

GIS Manager responsible for a team of 5 analysts. The team developed and maintained GIS data and designed process workflows to produce project deliverables efficiently and effectively. As GIS Program Manager, my specific duties included project presentations to internal teams and company clients, developing standards to ensure quality products and services, ensuring on-time release of products and services, and maintaining

documentation of best practices and lessons learned with each project. I actively participated in project development meetings with potential clients and developed marketing materials that exhibited past projects and our continually evolving technology capabilities. Daily responsibilities included management and prioritization of projects including project reporting, project documentation, and communication to pertinent staff.

### **Accomplishments**

- Deployed ArcGIS Server in the enterprise
- Implemented source control for software development teams using Subversion (svn)
- Created quarterly newsletter to highlight GIS projects and capabilities to the corporation
- Provided input to proposal teams for business opportunities that resulted in new methodologies for environmental remediation site designed

### **Parsons September 2003 - September 2015**

#### **GIS Consultant**

ArcGIS Desktop and Server specialist providing geospatial information and services to internal and external project teams. Expertise in Cartography, Data Development, Programming with Python and VBA, ESRI ArcMap and ArcCatalog and Extensions, Data ETL using Safe Software FME, DoD SDSFIE GIS Data Model. Areas of expertise include ArcGIS Server administration (map authoring, publishing, geoprocessing tools); web application development using ESRI Web APIs (JavaScript, Flex) and JavaScript frameworks (Dojo); development of web services using C# and Stored Procedures to provide XML formatted data; automated quality control utilizing Python; conversion between spatial data formats using Feature Manipulation Engine; geodatabase design and creation utilizing UML software to define relationships; geometry and attribute feature editing; automation of processes using ArcGIS Desktop and Python. Proven ability making good decisions, strategic thinking, a self-starter with teamwork skills.

### **Accomplishments**

- Deploy, configure and optimize ESRI ArcGIS Server in the enterprise. Including authoring, publishing and implementation of geoprocessing services.
- Developed prototype and production web applications using ESRI JavaScript, Flex and .Net API's. Multiple technologies integrated to achieve a seamless process and communication between client and server.
  - Tinker Air Force Base Facility Management website in JavaScript and Flex. Implemented database in MSSQL Server, Oracle. Data repository in ArcSDE. Web Services in C#. (TAFB\_Space\_Web.jpg)
  - Tinker Air Force Base GIS Database – standard operating procedures for editing, versioning workflows.
  - Parsons Proposal Production System website in JavaScript, ESRI JSAPI, ArcPy, ArcGIS Server geoprocessing.
  - DoD TREC website for tracking and reporting ordinance use in compliance with environmental regulations. Utilized ESRI API's JavaScript and Flex, Web Services in C#, Database functions in SQL Server. (TREC.jpg, TRECJS.jpg)
- Identified and implemented workflow processes to enhance data collection within ESRI server / client architecture, including web application development using ESRI JavaScript API, ArcGIS Server geoprocessing services that enabled data collection and automated map generation for estimating impacts and reporting final results.
- Performed GIS Analysis of flood vulnerabilities using ESRI ArcPy and Model Builder. Identified critical infrastructure inundated in multiple long-term scenarios of sea level rise. Developed website for visualization. (SeaLevelRise.jpg)
- TCEQ certified GPS collector and assisted non-GIS professionals to receive their certifications.

- Developed and managed multiple project GIS repositories, workflows, and data collection standardization and validation using ESRI ArcGIS Model Builder and ArcPy.
  - Camp Bullis Unexploded Ordinance (UXO) Clearance – 1-year project to create and maintain UXO clearance GIS database. Perform ArcGIS analysis of investigation criteria to enhance efficiency of operations resulting in fewer on-site work days.
  - Red River Army Depot – 3-year project to create and maintain soil and groundwater sampling results and UXO clearance GIS database.
- Imported, corrected and integrated field collected GPS data into multiple GIS project databases

## **EDUCATION**

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**Texas State University**

**San Marcos, Texas**

Master of Applied Geography Degree in Geographic Information Systems

Bachelor of Science Degree in Cartography