# **Zelalem Teferi Abate**

Address: 698, Theodor Street, Addis Ababa, Ethiopia | Mob: +251 913630260 | E-mail: phatzolo@gmail.com

### SUMMARY

Detail and result oriented software engineer and developer with 10+ years of designing and implementing enterprise grade applications for commercial companies and governmental organizations in various technologies and platforms. A zest for solving complex problems with proven skills, secure system development and multi tasked, besides experienced in development and leading national level projects.

# REMOTE WORK EXPERIENCE

### DISTRIBUTED SOLUTIONS, Inc.

Reston, Virginia USA https://distributedinc.com/

### **Full-Stack Developer**

May, 2022 – Oct, 2022

### Frontend

- Maintained, enhanced, and bug-ticket handled in legacy ASP.Net Web Forms and .NET Core projects.
- Developed complex reusable Web Components in TypeScript and HTML Web Component and integrated.

### **Backend**

• Developed *TagHelper*, complex reusable web components and integrated in .NET Core projects.

### **Platform**

- Framework and API
  - o .NET Framework (Web Forms, MVC, WebAPI)
  - .NET Core 3+ and Razor Page
  - TypeScript, JQuery, Bootstrap
- Azure DevOps Development, Visual Studio 2022, Software as a Service (SaaS)

### **Busoness Domain**

 Federal Acquisition, Contract Management Software, Procurement, Acquisition Management, Vendor Portal, Business Intelligence, Consulting Services, Business Process Automation, Business Process Management, Reporting and Analytics, Partner and Vendor Engagement, and Software Development

### **EXPERIAN INFORMATION SOLUTIONS, Inc.**

America–Irish

https://en.wikipedia.org/wiki/Experian

## **Full-Stack Developer**

Jan, 2022 – May, 2022

### **Frontend**

- Debugged, fixed, developed, integrated and documented in more than five ASP.NET Core and ReactJS based large projects.
- For developement platform and tools, refer below in Platform section.

### **Backend**

- Developed and replaced existed Dot.NET Core based AWS Secrets Manager with AWS.SDK.Secrets.Manager.Caching, .NET caching client (AWS Lambda - Serverless) and integrated in more than five project repositories.
- Debugged, fixed, developed, integrated and documented in a number of ASP.NET Core, WebAPI, and AWS Lambda Microservice based large projects.

### **Platform**

- Framework and API
  - o Microservice (AWS Lambda, Serverless), ASP.NET Core
  - o RESTful JSON API
  - AWS Client API (AWS Secrets Manager & AWS.SDK.Secrets.Manager.Caching)
  - okta Identity
- Developer Tools
  - o AWS CodeBuild
  - o Rider (IDE), Git & Github, NuGet & JFrog, Jenkins, Docker, Jira, Slack etc.
  - o MacOS (Developer Machine)

### **Busoness Domain**

- Experian Plc is a global information services company, which engages in the provision of data and
  analytical tools that are used to manage credit risk, prevent fraud, target marketing offers, and
  automate decision making.
- Services:
  - On cloud hosted Credit Tracking & Reporting Application for Small Business (White-labeled frontend solution).
  - On cloud hosted API for partners system to interact with via API calls

# PROFESSIONAL EXPERIENCE (Full Time)

### INFORMATION NETWORK SECURITY AGENCY

Addis Ababa, Ethiopia

### **Web and Application Engineer**

Feb, 2016 - Present

- Analysed more than five enterprises' requirements and designed using OOAD Methodologies for several internal and customer projects.
- Worked in multiple business domain, such as Cadastre, Land Management, Transportation, Finance
  (Accounting ERP)
- Analysed, designed, led, coached, and oversee a development team for Addis Ababa Land
  Information System project,
- Web GIS application researched, prototype implemented, team estabileshed, coached, led, and upgraded three project legacy applications from desktop implementation.
- Led Cadastre System Engineering Team with more than five senior expertis members
- For project and team experience, see below.

### **Geospatial System Engineer**

Nov, 2012 - Sept, 2014

### Fleet Management System (I-FMS Projects).

- Engineered & developed web applications, based on **GPS** and **Web Mapping** technology, which used to *track Vehicles* and *manages transportation company resources* (Driver, Dispacher, etc).
- I-FMS Implemented for more than five transport companies, two service providers, and for Ministry
  of Transport (to manage national import & export cargo transportation, mainly on Ethio-Djebuti road
  route)
- Participated & serviced in National Technical Streeing Committee (member) to implement NFMS
  nation wide in the governmental organizations, such as for Custom Authority.

### INSA Cost Compensation Calculator (IC<sup>3</sup>).

- Automatated the house demolition cost compensation calculator of Addis Ababa-City Administration (Urban Planning and Development),
- Apointed to integrate I-GIS mapping sub-module for parcel data visualization and navigation of Addis Ababa city,
- Developed Distributed Desktop Application in which SOA and Messaging Queuing (MSMQ) is used,

# Research and Development (I-GIS Project)

Sept, 2011 – Nov, 2012

- Researched & developed I-GIS, windows desktop application, that aimed to replace the expensive **Arc-View** desktop application which used for creating, editing, & viewing digital map.
- I-GIS developed based on 'mapwingis' Activex Control that comes from GIS free & open source (OSS)
   Mapwindow project,
- I-GIS supports *ESRI Shapefile* specification (*Spatial data* type).

### IT Professional (Programmer)

Researcher (R&D)

Oct, 2009 – Sept, 2011

## **General & GIS Application Developer Trainee.**

- Trained and developed Windows Form based sample application using C#,
- Application source code coding-standard and documentation,
- Basic GIS knowledge, applications, and products,
- Supported and maintained different customers and clients' vehicle management system applications (GPS based).

# LEADERSHIP EXPERIENCE

### INFORMATION NETWORK SECURITY AGENCY

Addis Ababa, Ethiopia

Dec, 2019 - Present

### **Engineering Team Lead**

National Cadastre Real Property Registration System (Client Project), Cadastre System Engineering Team (Internal Team)

- Leading internal Cadastre Engineering Team and working on multiple external client projects,
- Engineered, tested, deployed, trained, customer supported, and maintained the Cadastre Real Property Registration System which has been implemented nation wide in Ethiopia and for Addis Ababa Cadastre System,
- Prepared and has been maintained the software engineering artifacts, such as RAD, SAD, Technical Manual (System and software installation, configuration, deployment and setup on server and workstation environments), User Manual,
- Change request engineering and management, patching and maintaining the system, enhancing the system by R&D in-house and realizing new versions,
- National Cadastre Real Property Registration System is implemented in six pilot cities and the project is finalized and closedout, currently its waranty period,

Team Lead Dec, 2019- June, 2021

Web GIS Virtual Team (Internal Team)

- Took the responsibilities to enhance Web GIS prototype, include advanced features, build more team capabilities by R&D,
- Led the team parallely with Cadastre System Engineering Team,
- Adopted industry standards, such as OGC,
- Trained, coached and support the team members,
- Developed GIS standard and web based mapping application which is capable of viewing and editing digital map (Image) with raw spatial data,
- Handover the team to focus on Cadastre System Engineering Team completely.

### **Development Team Lead**

Nov, 2017 – Dec, 2019

Addis Ababa Land Information System (Client Project), Web GIS Team (Internal Team)

## Web GIS Team:

- Took the appointment to research Web GIS technologies and established the team,
- Research and studied the Web-GIS domain knoledge, skill, standards, technologies, tools, & expertise needs & presented the founding,
- Prepared the "Initial Operating Capapality" as roadmap,
- Led the team and developed the protoype.
- amet commodo magna eros quis urna. Nunc viverra imperdiet.
- Fusce est. Vivamus a tellus.

## Addis Ababa Land Information System (Project):

- Appointed as Development Lead for Addis Ababa Cadastre Project to apply and implement the Web GIS protoype and experience gained,
- Requirement developed, analysed, and designed,
- Developed, coach, and led the Land Infromation (Sub)System Team (One of the subsystem among three subsystems in the project),
- Integrated the developed application with the subsystems, tested, and deployed,
- Trained the customer's experites.

### Addis Ababa Water and Sewerage Authority I-FMS (Project)

- Led, coached, and managed fleet management system development team with more seven members,
- Addtoinally served as Product Owner,
- Led and monitor all the System(SW) Development Lifecycle (SDLC) Process,
- Requirements anlysed and designed using Object Oriented Analysis & Design (OOAD)
- Prepared RAD and SAD documents.
- Used "MS Agile SW Solution 5.0", Scrum Software Management Methodology,
- Used "MS Team Foundation Server (TFS 2010)" and "Sharepoint 2010" as Version Control, Issue Tracking, and Documentation Tools,
- Mapped Requirement with GPS Configuration and documented,
- Suppervised GPS hardware configuration, installation, and HW System integration.

### Project Manager

Sept, 2014 - July 2015

### **Development Bank of Ethiopia Fleet Management System (Project)**

- Managed fleet management system development with 7 9 team member size for customer project,
- Also Served as Product Owner,
- Used "MS Agile SW Solution 5.0", Scrum Software Management Methodology,
- Used "MS Team Foundation Server (TFS 2010)" and "Sharepoint 2010" as Version Control, Issue Tracking, and Documentation Tools,
- Mapped Requirement with GPS Configuration and documented,
- Suppervised GPS hardware configuration, installation, and HW System integration.
- Prepared frequent and periodical reports and letters for internal and customer

## SKILLS SOFTWARE ENGINEERING

Analysis, Design, & Management:

- Object Oriented Analysis and Design Methodology (OOAD),
- UML 2.0 & BPMN 2 Designing and Business Modeling Standards,
- RESTFull Web API-Service (HTTP+JSON) Service Oriented Architecture
- IEEE 1471 Architecture Description Standards & Framework,
- MS Solution Framework 5.0 Agile SDLC Methodology,
- Prince II Project Management.

## Tools

- Enterprise Architect, MS Office, Open Office, Google Docs,
- Archimate
- Jira, Slack, Teamsm & Sharepoint 2010 Issues Tracking & Documentation.

## SOFTWARE DEVELOPMENT

### **Programming Language & API**

- HTML5, CSS3, Javascript, iQuery, Bootstrap,
- Java, Python 2.7 & 3+, C#,

### **Framework**

- NodeJS-8+ (Express, KOA-2)
- Flask (Python Web Framework)
- Java Web Development (Servlet, JSP, and Spring)
- ASP.NET MVC
- ASP.NET Core-2+, 3+ (MVC, Razor pages)
- ASP.NET Entity Framework
- AngularJS

### **IDE, Library & Tools**

- Rider
- MS Code 1.62+
- MS Visual Studio 2015+
- MS-Build & MS-Deploy
- Eclipse

### **DevOps**

- GIT & Github- Distributed Version Control Management
- AWS CodeBuild
- Azure DevOps Development
- Gitlab, Jenkins (MS-Build & MS-Deploy) Contineouse Integration (CI),
- Team Foundation Server (MS-TFS 2010) Centralized Version Control Management,
- vSphere (esxi 6), Oracle Vertualbox Virtualization

### **GIS DEVELOPMENT**

- Leaflet, Openlayer, Google Map API (Client Side JavaScript API)
- QGIS, Arc View, PostGIS, OGC, GPS Device

### **WEB SERVER & DATABASE**

- NGINX-1.13+, IIS-7+, Apache Tomcat-2+ (Web Servers),
- PostgreSQL/PostGIS/pgAdmin, MS-SQL Server, MongoDB, MySQL

### **PLATFORM (OPERATING SYSTEM & NETWORKING)**

- **Ubuntu 16.04 20.04** Linux Distribution (Desktop & Headless Server)
- Windows 7, 8, 10+ MS-Windows (Desktop OS)
- Windows Server 2008 r2, 2012+ (Server OS)
- LAN-WAN Network Access & Routing (TCP-IP Suites, CCNA, Socket Programming)

### **BUSINESS DOMAIN**

- Transportation (Location based System)
- Geo Information System (GIS)
- Land Management (Cadastre)
- Accounting (ERP Odoo)

**EDUCATION** 

MSC in Cyber Security (In PROGRESS: (Only Research Proposal and Thesis)

2021 - Present

Addis Abeba Institute of Technology (AAiT)

**BSC** in Computer Science

August, 2009

Addis Abeba University (Science Faculity)

**CERTIFICATION** 

Programming in HTML5 with JavaScript and CSS3 (480)

Dec. 2016

**Microsoft Certified Professional - MCP**