

Joseph C. Dillard, GIS Architect/Developer

Rockwall, Texas, 254-266-5410, joseph.dillard@outlook.com

PROFILE

Driven goal-oriented GIS Architect/Developer with over 23 years of GIS experience, 17 years Designing, Building, and Maintaining Enterprise GIS Systems, 9 years of experience in GIS Web Development. Highly Skilled in most Esri ArcGIS Enterprise and Desktop Products. Active Secret Clearance. Security+ Certified. U.S. Army Veteran.

EMPLOYMENT HISTORY

Aug 2021 — Present

Scientist, System Engineer - GIS Solutions Architect, L3Harris

Greenville, TX

Design, document and configure various commercial and FOSS based GIS server systems for internal research and development efforts for future company products.

Lead effort to research GIS data, software, and OGC ISO standards and then simplify the information into a Wiki for other engineers to reference when designing GIS systems.

Research, testing, and evaluation of commercial GIS Server Software to be used in Signal Intelligence systems.

Coordinate the acquisition of GIS data sets from DOD Agencies for use in Enterprise GIS Systems. Develop pipelines using tools like NiFi and GeoPandas to convert data from GeoJSON to Oracle Spatial. Making the data acquisition and ingest into systems automated.

Jan 2013 — May 2021

GIS System Architect - GIS Developer, CACI International Inc.

U.S. Forces Korea

Architect and Lead Developer for an ArcGIS Enterprise based Situational Awareness System (Common Operating Picture) used by the Pacific Air Forces and U.S. Forces Korea. The ArcGIS-based system has over 50 custom applications and dashboards built for different user communities.

Because of the success of the system in the first two years of use by the U.S. Air Force in South Korea. The contract was expanded to include Combined Forces Command, U.S. Forces Korea and U.S. Air Force Commands and bases in South Korea and the Pacific.

Designed the system architecture and lead development from inception through four major revisions of the system over 8 years. Lead the development of two major software version releases to architecture and applications every year to multiple versions of the systems on different networks and locations.

Selected all server and network hardware used for the system ensuring compatibility with the network and ensuring the system was scalable for future application and user growth.

Designed the ArcGIS Enterprise System with a robust architecture allowing the system to handle over 20,000 ArcGIS Server requests per minute and over 2,300 unique users a day.

Provided Technical Direction and Mentoring to members of the team, including System Administrators, GIS Web Developers, and GIS Administrators maintaining the ArcGIS Services and GIS data stored in Oracle.

Worked with customers to communicate the advantages of an agile approach for the management of development projects using Minimum Viable Products, Development Sprints, and consistent engagement with the Product Owners to develop better applications.

“Unique ability to help Product Owners create requirements for their application when they do not understand what they need in the application or what its workflow should be”. Quote from my manager.

Feb 2004 — Jan 2013

Senior GIS Analyst - GIS System Administrator, CACI International Inc.

Osan Air Base, South Korea

Served as Administrator for ArcGIS ArcIMS/IMF and ArcGIS Enterprise Servers on multiple networks.

Held primary responsibility as the DBA of ArcSDE Oracle Databases on multiple systems.

Assisted and Lead Architecture changes to the system hardware and software configuration multiple times over the life of the system.

Deliver 24/7 technical support for multiple ArcGIS Enterprise Systems running different networks and locations. Ensuring rapid resolution of issues and bugs affecting end users.

Performed geospatial data development in support of the Expeditionary (GeoReach) component of the Air Force GeoBase program. While adhering to metadata, SDSFIE and topology standards using ArcGIS Production Mapping and PLTS.

Maintained/disseminated geospatial data leveraging Air Force GeoBase Enterprise GIS Architecture.

System Administration for Windows Server and VMware virtual machines running ArcGIS Enterprise on multiple networks.

Delivered exercise and/or contingency support as required.

Commercial Imagery, NGA RPF and NITF raster data processing using ERDAS IMAGINE

Apr 2000 — Feb 2004

Production Manager and Geospatial Engineer 12Y, U.S. Army

U.S. Army

Delivered managerial oversight for mission-critical design and development of GIS-driven solutions and map-based products.

Provided greater productivity, enhanced training capabilities, better collaboration, and improved access to critical information.

Supervised personnel and provided technical guidance in support of their duties.

Delivered high-level technical expertise and generated detailed end-user documentation for advanced GEOINT systems. Frequently recognized as a technical expert by leadership.

Authored new standard operating procedures for the production of Geospatial products.

Created and updated multiple databases for managing imagery, vector data, maps, and collateral source materials.

Efficiently directed a wide range of cartographic and terrain analysis duties.

Ensured quality assurance during all stages of GEOINT operations.

Trained personnel on the proper and effective use of ArcGIS Desktop and ERDAS IMAGINE to produce GEOINT, Imagery and other GIS data and products.

Successfully increased department productivity and streamlined operations through intensive training efforts.

SKILLS	SKILLS			
	SKILLS	SKILLS	SKILLS	SKILLS
SKILLS	Agile Scrum Development	Experienced	Hibernate - GORM	Experienced
	Amazon Web Services (AWS)	Skillful	IntelliJ IDEA	Expert
	DevOps		Java	Experienced
	AWS Architecture	Novice	JavaScript - HTML - CSS	Experienced
	Angular 5+	Experienced	MariaDB and MySQL	Expert
	Apache Tomcat	Expert	Microsoft Azure	Novice
	ArcGIS Cloud Builder	Skillful	Microsoft Hyper-V	Experienced
	ArcGIS Enterprise	Expert	Microsoft Windows Server	Experienced
	ArcGIS GeoEvent Server	Experienced	NodeJS	Skillful
	ArcGIS JSAPI 3.x/4.x	Experienced	OpenLayers	Skillful
	ArcGIS Portal	Experienced	Oracle Database	Expert
	ArcGIS Server	Expert	PostgreSQL - PostGIS	Skillful
	ArcSDE	Expert	Python - ArcPy - GeoPandas	Experienced
	Atlassian Jira and Confluence	Experienced	Risk Management Framework (RMF)	Skillful
	CI/CD using Jenkins	Skillful	QGIS	Skillful
	Docker	Skillful	SQL - PL/SQL	Expert
	Enterprise GIS Architecture	Expert	Spring Boot	Skillful
	ERDAS IMAGINE	Skillful	Spring Security	Experienced
	GDAL	Skillful	Unix - Linux Operating Systems	Skillful
	GeoServer - OGC Services	Experienced	Visio - UML	Skillful
	Git - Github	Experienced	Visual Studio Code	Expert
	Gradle - Maven	Experienced	VMware	Experienced
	Grails - Groovy	Experienced		

SKILLS LEGEND

Least to Most: **Novice - Skillful - Experienced - Expert**

EDUCATION

2012 — 2013	Web Development, Western Governors University
2000 — 2000	Geographic Information Sciences, National Geospatial Intelligence College

Aug 2011 — Aug 2026	Security+ CE Current DOD 8570 cert
Mar 2018	Attended Esri Developers Conference March 2018 Palm Springs California
Jun 2018	Active Secret Security Clearance

LINKS

LinkedIn Profile

<https://www.linkedin.com/in/joe-dillard-gis-architect/>

Article GeoBase Mission Command System

Air Force Public
Affairs

Article describing the system I designed and built as the Architect and Lead Developer, This is an earlier version of the system, about three years into development in 2016. I am quoted in the 6th paragraph. Article as a whole describes part of the system and how it is used.

Main Article:

<https://www.dvidshub.net/news/195988/pacaf-utilizes-geobase-program>

Two Extra Images with Captions:

<https://www.dvidshub.net/image/2542634/pacaf-utilizes-geobase-program>

<https://www.dvidshub.net/image/2542636/pacaf-utilizes-geobase-program>

GitHub

<https://github.com/JosephDillard/JosephDillard>