Joseph C. Dillard, GIS Solutions Architect

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PROFILE

Driven goal-oriented GIS Architect with over 22 years GIS experience, 17 years Designing, Building, and Maintaining Enterprise GIS Systems, 9 years experience in Java and GIS Web Development. Highly Skilled in most Esri ArcGIS Desktop and Server Products. U.S. Army Veteran.

EMPLOYMENT HISTORY

Aug 2021 — Present

Scientist, System Engineer - Enterprise GIS Architect, L3Harris
Greenville, TX

Design and Configure Open Source GIS Server Systems for Internal Research and Development Effort's.

Use Case and Requirement Gathering from Commercial and Internal Developed Legacy Enterprise System's for new system's under development.

Assisted with Research and Testing of Commercial GIS Server Software to be used in SIGINIT system's.

Jan 2013 — May 2021

Systems Architecture T4 - Web Developer T4 (SME GIS), CACI International Inc.
U.S. Forces Korea

Architect and Lead Developer for a GIS-based Situational Awareness System used by the Pacific Air Forces and U.S. Forces Korea. The GIS-based system has over 50+ applications built for different user communities within the Pacific Air Forces and USFK organizations. Combines into a single map view and dashboards that help users aggregate information to report to commanders at different echelons to help make more informed decisions. Users now spend more time analyzing data to make decisions and less time trying to track down information.

Custom applications built using Java, Grails, Spring Boot, Spring Security, Angular 5+, and PrimeNG. Grails has many benefits, one being Increased Developer Productivity which means quicker response to changing client requirements in an Agile environment. The other languages and frameworks listed integrate nicely with Grails and most importantly help meet the customers' requirements for various applications.

Load balancing across 14 ArcGIS Servers and 7 Web Servers running custom Tomcat Load Balancing with 8 Tomcat instances per web server. Zero downtime due to technical failure of the system during major training events with up to 2900 unique users. Previous similar systems outside of this project had a history of not performing well during these events due to the number of users. The system has been observed handling 20,000 ArcGIS Server requests per minute.

Designed the system architecture through four versions of the system over 8 years.

Selected all server and network hardware used for the system ensuring compatibility with the network and planning ahead for system growth.

Provide Technical Direction and Mentoring to members of the team, including System Administrator, Web Developer, and GIS Administrators maintaining the ArcGIS Services and GIS data stored in SDE/Oracle.

"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 Karen Munroe"

Worked with COR to communicate the advantages of an agile approach for management of development projects Minimum Viable Product, Dev Sprints, consistent engagement with the Product Owners helped develop better applications, in shorter time periods while minimizing unneeded requirements.

As a team player, I consistently seek other team member's thoughts on technical decisions, ideas, and problems.

Feb 2004 — Jan 2013

Senior GIS Analyst - GIS System Administrator, CACI International Inc.
Osan Air Base, Korea

Served as Web Admin for ArcGIS ArcIMS/IMF and ArcGIS Servers on multiple networks.

Held primary responsibility for the administration of ArcSDE Oracle database servers on multiple networks.

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 ensuring optimal system configuration and connectivity.

Perform geospatial data development in support of the Expeditionary (GeoReach) component of the Air Force GIS Enterprise System.

Maintain/disseminate geospatial data leveraging Air Force Enterprise GIS Architecture.

System Administration of Windows Servers and VMware vSphere virtual machines.

Delivered exercise and/or contingency support as required.

Commercial and NGA Imagery processing using ERDAS IMAGINE

Provided Limited Trimble Survey Support

| Apr 2000 — Feb 2004 | **Production Manager and GEOINT Analyst, 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 imagery systems.

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

Utilized multiple databases for managing aerial photographs, maps, digital databases, and collateral source materials.

Played a key role in the accurate development of more than 375 GIS and map-based documents.

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

Ensured quality assurance during all stages of topographic operations.

Operated imagery equipment produced GIS maps and products and supported operational missions.

Trained personnel on the proper and effective use of imagery and GIS equipment.

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

SKILLS

Agile Scrum Development	Experienced	Java	Experienced
Amazon Web Services (AWS)	Beginner	JavaScript	Experienced
Angular 5+	Experienced	Microsoft Hyper-V	Experienced
Apache Kafka - ETL Tool	Skillful	Microsoft Windows Server	Experienced
Apache Tomcat	Expert	MySQL	Expert
ArcGIS Event Server	Experienced	NodeJS	Skillful
ArcGIS JSAPI	Experienced	Oracle Database 11g/12c	Expert
ArcGIS Portal	Experienced	Pathfinder Office	Skillful
ArcGIS Server	Expert	PHP	Skillful
ArcSDE	Expert	PrimeNG	Experienced
Bootstrap	Experienced	Python	Experienced
Docker	Skillful	Risk Management Framework (RMF)	Skillful
Eclipse IDE	Experienced	SOA - REST and SOAP	Skillful
Enterprise GIS Architecture	Expert	SQL - PL/SQL	Expert
ERDAS IMAGINE	Skillful	Spring Boot	Skillful
Git - Github	Experienced	Spring Security	Experienced
Gradle - Maven	Experienced	UML	Skillful
Grails	Expert	Unix - Linux Operating Systems	Skillful
Hibernate - GORM	Experienced	Visual Studio Code	Expert
HTML & CSS	Expert	VMware vSphere	Experienced
IntelliJ IDEA	Expert		

SKILLS LEGEND

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

EDUCATION

2012 — 2013   Web Development, Western Governors University

2000 — 2000   Geographic Information Sciences, National Geospatial Intelligence
                     College

Aug 2020 — Aug 2023 **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