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**Name:** Eric W Brockwell  
**E-Mail:** eric.brockwell@gmail.com  
**Previous Position:** Engineering Group Manager / Innovation Owner

**Profession:** Geographer  
**Specializations:** Information Systems, Troubleshooting, AI/ML, Mobile, Digital Transformation  
**Education:** Bachelor of Science – Geosciences  
Master of Arts – Russian & East European Studies

## Profile

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I am a results-oriented product builder with over 25 years of experience delivering systems and services that develop, analyze, and provide data and information in the Oil & Gas, Environmental, Transportation, and Automotive industries. I have spent over 15 years prototyping, architecting, and building platforms and tools for both internal customers and the public to use maps, data analysis and Business Intelligence. I collaborate with colleagues and customers to deliver appropriate solutions in a timely manner.

## Selected Experience

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**(2022 to 2023) General Motors : Engineering Group Manager** led two cross-location teams of software engineers to design/build/maintain backoffice APIs that supported GM Mobile Applications: Vehicle Location Services, myBrand [myChevy, etc.], Vehicle Health, Real-Time Notifications, and Smart Driver.

**(2021-2022) General Motors : Senior Strategy & Performance Specialist** worked across and between previously separate IT and Engineering lines of business to develop a shared culture of Objectives & Key Results [OKRs] as well as integrated/aligned planning/delivery for GM's newly created Digital Business Team improving processes and other aspects of digital interaction with vehicles and customers.

**(2016-2021) General Motors : AI/ML Senior Software Developer/Software Development Manager** working closely with internal customers, developed geospatial components and systems to consume data from and interface with pilot mapping and routing systems for autonomous vehicles; transferred geospatial knowledge to the wider development team; ensured compliance with GM IT processes and requirements; built and led two teams of 15-20 developers to innovate and productionize systems, apps, sites, and features for sensor data retrieval/storage/annotation, and on-vehicle maps.

**(2014-2015) Chevron Thailand : Senior Geomatic Engineer** reverse-engineered GIS solutions to provide data and analysis tools to earth scientists, hydrogeologists, and geomatics professionals via desktop clients using .NET, Python and ESRI JavaScript API; managed the geotechnical and geophysical software suite including license management and planning and change management of version upgrades.

**(2012-2014) Qatar CPO : GIS Administrator & Developer** responsible for spatial databases and web map services including development of Qatar Integrated Programme Tool integrating multiple project Gantt charts with maps; upgrade of enterprise GIS software for desktops, servers, and databases; integration of P6/Primavera programme dates with GIS data; and troubleshooting issues with and between ESRI, FME, SharePoint, and .NET services, applications, and interfaces.

**(2003-2012)** Various Information Service administration and development roles on a variety of projects around the world through contracts, consulting firms, and manpower agencies, including:

- **BP Oil Spill Response, US Gulf of Mexico:** Developed various fit-for-purpose web map applications consuming ArcGIS Server map services with the ESRI JavaScript API to support the multiple Command Posts/Centers during the BP Deepwater Horizon oil spill response; created processes for updating spatial databases and wrappers for providing and consuming data services in web map applications of real and near real time Gulf of Mexico vessel GPS locations.
- **Kashagan Oil Field Development, Kazakhstan:** Served as interim Oracle 10g DBA and ArcSDE administrator for local GIS databases; tested and improved database backup and restore procedures and improved related documentation; scripted manual and automated auditing of user access for periodic security reports; trained Kazakhs to set up and configure Oracle database both manually with scripts and using the automated Oracle database creation tools, to configure, upgrade, and administer ArcSDE, and to develop map services and map viewers with ArcGIS Server.

## Skills

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- Programming Languages: Python [2007-2017], JavaScript [2001-2014]
- Frameworks/Libraries: ESRI JavaScript API [2008-2014], Dojo [2008-2010]
- Databases: Oracle [1997-2017], SQL Server [2012-2014], PostgreSQL [2009-2010]
- Tools: Confluence [2017-2021], Teams [2019-2023], TFS/ADO [2017-2023]
- Methodologies: Scrum Agile [2016-2022], Scaled Agile [2022-2023], AI Prompt Engineering [2024]

## Intellectual Property

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- ["Environment Awareness System for Experiencing an Environment Through Music"](#) – GM Patent Ref. No. P052232-US-NP – Pending: April 7, 2022, Allowed November 17, 2023
- "User Sensory Control" – GM Patent Ref. No. P105138-PRI-NP-US01 – Submitted to USPTO: August 08, 2023
- 2 GM Defensive Publications and 1 GM Trade Secret co-published/awarded [2023]

## Employment History

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2016 – 2023	General Motors, US
2014 – 2015	Chevron Thailand Exploration and Production, Thailand
2012 – 2014	WS Atkins & Partners Overseas, Qatar
2011 – 2012	Ministry of Water Resources, Iraq
2010 – 2011	URS Corporation [now AECOM], US
2009 – 2009	Agip KCO, Kazakhstan
2005 – 2009	URS Corporation [now AECOM], US
2003 – 2005	Agip KCO, Kazakhstan
1996 – 2003	Florida Department of Environmental Protection, US
1995 – 1996	Jefferson County Florida, US

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