

Meghan S Kulkarni

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SUMMARY

Full Stack GIS Applications Developer with utmost passion for maps. Specialized with ESRI's ArcGIS Enterprise Suite.

PROFESSIONAL EXPERIENCE

React/GIS Developer – AIS Inc

Aug 2022 – Present

Technologies Used: ArcPy (Python 3.7), ArcGIS API for JavaScript, ArcGIS API for Python, TypeScript, React.JS

- Designed, developed, maintained, enhanced various ArcGIS Enterprise services such as hosted vector tile layer, imagery layer, map image layer utilizing arcpy module
- Created custom scripts and templates using YAML, PowerShell to automate deployment of ArcGIS Enterprise services
- Monitored and troubleshooted CI/CD pipeline to ensure reliability and resolve deployment issues promptly
- Utilized ArcGIS API for JavaScript to consume within ReactJS app various ArcGIS Enterprise services such as hosted vector tile, imagery layer, map image layer
- Utilized ArcGIS API for JavaScript to develop mapping, spatial data visualization and analysis capabilities
- Utilized GIS-related features (use of industry standard GeoJSON) for performance improvement and responsiveness
- Wrote clean, modular and reusable code following best industry practices in ReactJS and ArcGIS API for JavaScript
- Collaborated with backend developers to ensure seamless integration of geospatial data services and APIs
- Participated in Agile software development activities such as sprint planning, refinement, retro, daily stand-ups
- Conducted code reviews to ensure software quality through testing and debugging

GIS Applications Developer - Mitchell Martin Inc

Jun 2021 – Aug 2022

Technologies Used: ArcPy (Python 3.7), ArcGIS API for JavaScript, ArcGIS API for Python, SQL Server

- Designed, developed, deployed and maintained Python ETL Scripts with ArcPy module. Deployed as a Windows Task (with help .bat file) running on pre-defined schedule
- Developed map widget with ArcGIS API for JavaScript for embedding into internal web app to replace existing map widget
- Developed Content Migration Python script with ArcGIS API for Python to move WebMaps, WebApps, Dashboards from lower lane environments into Production
- Worked on implementing Esri's GeoEvent Server to capture, process and raise trigger (email for instance) of real-time events (Civil Unrest for instance) tagged 'items-of-concern'
- Documented Standard Operating Procedure (SOP) for Production Support team for Incident Handling

GIS Developer - CentralSquare Technologies

May 2018 – May 2021

Technologies Used: ASP.NET MVC, C#.NET, VB.NET, ArcGIS API for JavaScript, ArcPy (Python 2.7), SQL Server

- Analyzed, reproduced, debugged, and resolved defects (if found) in the application reported by Prod Support or Professional Services (during implementation)
- Developed custom Python scripts with ArcPy module for cloud version of Community Development application including token-based authentication capability for rendering map component and extracting data from client's map service (from REST Endpoint)
- Developed custom Python scripts to import client's GIS dataset (Land Parcels, Address Points, etc.) from Enterprise Geodatabase into Community Development Application
- Performed spatial join of Land Parcels with various layers (for example, flood zones, ecologically sensitive zones, etc.) dataset to align with Community Development's database schema
- Developed new feature 'SpatialConnect' to dynamically pull Land Parcels from client's map service into Community Development 'on-the-fly'

- Developed/maintained SQL Stored Procedure (deployed as SQL job) to pull client's GIS data into Community Development application
- Installed, configured, maintained (including license management from ESRI) for in-house ArcGIS Enterprise environment (Components: Portal for ArcGIS, ArcGIS Server, WebAdaptor for ArcGIS, ArcGIS Data Store)
- Counseled clients to follow best practices related to map publishing, vector tile caching, publish aerial imageries.
- Conducted requirements analysis meetings for future enhancements/roadmap planning to the application

Software Engineer - MasterCard Technologies Pvt. Ltd. Pune, India

Feb 2014 - Jul 2016

Technologies Used: Pro*C, PL/SQL, Java wicket Framework, Shell Scripting, Oracle 10g

- Analyzed, reproduced, debugged, and resolved defects (if found) on Incidents reported for various products such as Forex/Travel, Debit, Credit, Gift Cards
- Incidents involved facilitation of multi-currency, and multi-wallet payment settlement for multiple clients
- Built DEV and UAT environment on UNIX platform from ground up for QA Testing
- Authored and documented Standard Operating Procedures (SOP) for Forex/Travel, Debit and Credit card products

SKILLS

- Programming : Python, JavaScript, TypeScript, C#
- RDBMS : Microsoft SQL Server, Oracle 10g, PostgreSQL
- Web Frameworks : ASP.NET MVC, .NET Core, ReactJS
- Cloud : Azure Cloud

CORE COMPETENCIES

ArcGIS Enterprise	ArcGIS Pro	Microsoft Azure Cloud	QGIS
Microsoft .NET Framework	ETL Workflows	API Development	Containerization & Orchestration

EDUCATION

Master of Science - Geospatial Information Sciences	May 2018
The University of Texas at Dallas	
Bachelor of Engineering - Information Technology	May 2013
University of Pune	

PROJECTS

Site Suitability Analysis for Managed Aquifer Recharge

Aug 2017- May 2018

Technologies Used: PostGIS, ArcGIS Pro

- Performed Site Suitability analysis for groundwater recharge by studying various surface (precipitation, elevation, surficial geology, etc.) and sub-surface characteristics (aquifer thickness aquifer hydraulic conductivity, water table depth, etc.)
- Stored data with PostGIS Enterprise Geodatabase for further processing using tools built into ArcGIS Pro
- Calculated site suitability by weighted mean, land-use land-cover, ground elevation, etc.

Professional References

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