Subramanian Swaminathan, GISP

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SUMMARY

Subramanian has over 13 years of GIS software and systems experience. This experience includes developing web-mapping applications based on ArcGIS Enterprise, ArcGIS Server, Portal for ArcGIS and various ArcGIS Web mapping APIs with a focus on enterprise GIS, emergency response, critical infrastructure/disaster management, spatial analysis, demographic analysis, and remote data maintenance. Subramanian has also performed GIS data construction, programming, database management, GIS analysis, system implementation and project management. He has served as the technical lead for GIS enterprise systems and managed multiple application development projects with focus on application needs assessment, GUI design, system architecture, software development, implementation processes, integration testing, performance tuning, documentation, and system deployment and operation.

WORK EXPERIENCE

Senior GIS Systems Architect, Sept 2016 - Present

RAMTeCH Software Solutions, Inc. - Professional Services Division

GIS Programmer/Engineer, Lead, March 2014 – September 2016

Pierce County Information Technology – Spatial Services Division. Tacoma, WA

Enterprise Raster Data Management Specialist, November 2012 – Feb 2014

RedCastle Resources Inc., Onsite at: Remote Sensing Applications Center, USDA Forest Service, UT

Education & Projects Coordinator, December 2005 – November 2012

Center for Interdisciplinary Geospatial Information Technologies Delta State University, Cleveland MS-38733

WORK AUTHORIZATION: US Permanent Resident (Green card holder)

RECENT PROJECTS

Southern Company – Developed ArcObjects, ArcFM Objects based custom editing tools and database maintenance tools using ArcPy and Python

Portland General Electric – Developed the technical section of the geospatial strategy and implementation plan.

Implement Portal for ArcGIS and develop COTS mobile GIS applications for Electric distribution

Wide Open West Telco(WOW!) – Managed Services: Upgrade ArcGIS Enterprise and all dependencies to ArcGIS 10.6, Enterprise GIS web application enhancements, Serviceability Cost Estimation Mobile Web Application

Map Maintenance project – Technical lead and Database administrator on a continual CAD to GIS data update project

GIS Analysis – Conduct spatial data analysis to derive valuable insights into existing WOW! datasets **SCANA Gas Initiative** – Served as ArcGIS Enterprise technical lead for Utility Network migration project. Developed ArcGIS Pro and ArcMap applications.

RAMTeCH - Amazon Web Services System administrator, Lead and managed GIS data and application migration, enterprise GIS development environments from previous data center to AWS. Provide continued and ongoing support for new and existing AWS deployments.

EDUCATION

Graduate Studies in Geography (Doctoral Student) Arizona State University, May 04-Dec 05
Master of Science, Computer Science Arizona State University, May 2004
Bachelor of Engineering, Computer Science University of Madras, India, May 2001
Professional Diploma in Network-Centered Computing (2 year) NIIT, Chennai, India, May 2001

CERTIFICATION

Certified Geographic Information Systems Professional (GISP): April 2012-Present

PREVIOUS PROJECTS

ArcGIS Server and ArcGIS Image Server administrator for the Missouri State-wide GeoPDF atlas project for the Missouri Army National Guard (2010-11)

ArcGIS Server and ArcGIS Image Server administrator for the USGS wetland delineation project sponsored by the National Wetlands Research Center, Lafayette (2009-2014)

GIS Analyst - Conducted spatial analysis of severe weather incidents (tornadoes, significant hail, and high wind) for the 2010 State of Mississippi standard hazard mitigation plan update for MEMA (Mississippi Emergency Management Agency). DSU GIT Center was the GIS team in the overall group led by Neal-Schaffer Inc.

GIS Technical lead on U.S. National Grid Project sponsored by U.S. Geological Survey (USGS) Developed web mapping application software tools and completed geospatial data development, to implement the U.S. National Grid and create nation-wide U.S. National Grid 1,000-m polygon layers and 100m polygon layers for the top 20 US urban areas (2007-2011).

GIS Project Manager in the development of county wide street base map projects for Phase II Wireless E-911 implementation in Mississippi counties of Attala, Bolivar, Sunflower, Union, Leflore, Lamar, Leake, Washington & Carroll (2006-2010)

Geodatabase Designer and GIS System Architect for an Enterprise GIS at the Yazoo-Mississippi Levee District Board at Clarksdale, MS (2008-2012) and Three Rivers Planning and Development district at Pontotoc, MS (2008-2011).

ACADEMIC COURSES TAUGHT AT DELTA STATE UNIVERSITY

GIS for the Internet and Spatial Databases (GIS 480 and 580), GIS Programming (GIS 470 and 570), Cartography (GIS 200) and Introduction to GIS (GIS 202)

PUBLICATIONS

Brooks and Swaminathan (2010). "Integrating the Paper and Digital Environments for Crisis/Emergency Response: Lessons Learned". Proceedings of Global Spatial Data Infrastructure at the GSDI (Global Spatial Data Infrastructure Association) 12 Conference held at Singapore (October 2010). Paper available at http://www.gsdi.org/gsdiconf/gsdi12/papers/116.pdf

Brooks T, Swaminathan S, Sowell S, and P Cauthen (2011). "Cooperative Education and the Cooperative: GITA and CEPA Forge GIS Partnership". Electric and Transmission World. V: 17 p 22. (http://tdworld.com/)

AWARDS

Second place in Map Series or Atlas – Press Copy category for "Missouri Army National Guard State Wide County US National Grid Map Books": Talbot Brooks, Michael Maloney and Subramanian Swaminathan of the DSU GIS Center Group: Delta State University. ESRI Annual International User's Conference, San Diego, CA July 2011

Esri Special Achievement in GIS(SAG) recognition of GIS project implementation - The Yazoo-Mississippi Delta Levee District (YMDLB) was selected from a pool of more than 300,000 nominees to receive one of 2011's "Special Achievement in GIS Awards" at the 2011 ESRI International User's Conference. This award was given with respect to their rapid development and implementation and subsequent use of the GIS to manage the 2011 Mississippi River flood event.

Awarded State of Mississippi house concurrent resolution No.99 commending merited and dedicated service to people in Haiti and Chile (Jan-Feb 2010) after the earthquakes and to Delta State University at the 2010 Delta State University Fall Convocation.

CONFERENCE PRESENTATIONS

Moving your Enterprise GIS to the Cloud (AWS): Things to consider @WAURISA Conference 2018 held at Olympia, WA

Developing Owner Notify Tool using Geocortex Software @WAURISA Conference 2016 held at Tacoma, WA

Lessons Learned – Building ArcGIS Server 10.x Image Services @NWGIS Conference 2014 held at Lynnwood, WA

Lessons Learned – Building ArcGIS Server 10.x Image Services @ESRI Southwest Conference 2013 held at Salt Lake City, Utah

TECHNICAL SKILLS

GIS Software (ESRI): 13 years' experience
ArcGIS Pro 2.x, ArcGIS Desktop 10.x

ArcGIS Enterprise - Portal for ArcGIS ArcGIS Server 10.y, ArcSDE 10.y/SOI Server

ArcGIS Enterprise - Portal for ArcGIS, ArcGIS Server 10.x, ArcSDE 10.x/SQL Server Geocortex Essentials, Geocortex HTML/JavaScript Viewer and Geocortex Workflows (~ 2 years)

Programming Languages: C#, JavaScript, Java, Python 2.x and 3.x

Software Frameworks/SDKs/APIs: ESRI ArcGIS Pro SDK, ESRI ArcGIS Server Rest API, ESRI ArcObjects, ArcPy and ArcGIS for JavaScript API 3.x and 4.x

Database management systems: Microsoft SQL Server

Cloud: Using and administering ESRI ArcGIS Server and ArcGIS Desktop in Amazon EC2, ArcGIS Online, ArcGIS Online for organizations

GIS VOLUNTEER SERVICE

- 1. **Hurricane/TS Irene response (August 2011)** Mapping support and GIS web viewer(Flex/Flash) based dissemination of county wide GeoPDF atlases for Vermont Agency of Transportation, MATF and other responders.
- 2. **Mississippi River Flood (May 2011)** Provided GIS and mapping support such as Flood extent mapping, crop damage assessments to YMDLB, MEMA, Delta Council, Delta Wildlife based on USACE projections
- 3. Tornado Outbreak (26-29 April 2011)- Provided GIS and mapping support to FEMA, MEMA and MARIS
- 4. **Great Japanese Earthquake and Tsunami in March 2011** Provided GIS and mapping support
- 5. Haiti and Chile Earthquake (Jan-Feb 2010) Provided GIS and mapping support
- 6. **Hurricane Gustav, 2008** Volunteer at the GIS Desk at the Mississippi State Emergency Operations Center at Pearl, Mississippi

UNIVERSITY SERVICE

- 1. Faculty Senate Representative (1 of 4) in the University Budget Committee (Fall 2009 April 11, 2010)
- 2. Chair of the Faculty Senate Technology Committee and member of the Faculty Senate Executive committee 2009-10, 2010-11,2012-2013
- 3. Serve as a Senator in the Delta State University Faculty Senate (2008-2013)
- 4. Delta State University Graduate Faculty Council Member 2009-10, 2010-11

INVITED PRESENTATIONS AND WORKSHOPS

• FY13 LiDAR meeting at USGS office in Jackson MS – Presented on how to create useful products for layman users from LiDAR datasets such as DEMs. Focused on efficient processing and

- dissemination to a diverse and dispersed audience (2012)
- US National Grid Workshop at Arlington, TX Conducted workshop with DSU colleagues for Dallas- Ft. Worth area GIS professionals and first responders (July 2011)
- US National Grid Workshop at Oakland, CA Conducted workshop with DSU colleagues for East Bay Municipal Utility District (EBMUD) (July 2009)
- Lessons learned from Hurricane Katrina Presented the keynote address at the Fifth Annual Mid-Tennessee GIS Conference held at Nashville, TN (2006)
- GIS Mapping and E911 Presented at the Annual Mississippi E-911 Coordinators Conference held at Tunica, MS (2006)