Ganesh Solai Sambandam: AWS Architect / DevOps Architect

Mobile: 07817847635 | Email: ganeshssac@yahoo.com SC Vetted - Expiry: 29/07/2020

Profile

Resourceful, Knowledgeable and Energetic individual with outstanding AWS Cloud & GIS technical and commercial skills built over 15 years experience in IT from diverse vertical segments. Can-do-Attitude, willing to learn new aptitudes, quickly adopts to change, love challenges to create innovative solutions to an organisation.

Expertise

- AWS Certified Solution Architect 2018.
- Experienced AWS Architect on setting up laaS, PaaS and SaaS such as VPC, EC2 Instances, RDS, S3, ELB, EBS, IAM security groups - AWS Console, CLI and Cloud Formation tools.
- SysOps Administration skills on EC2instances, EBS volumes, IBS, RDS, Elastic Cache and Dynamodb services on the AWS cloud.
- Experience in Micro-service Architectures using AWS Lambda functions and integrating API Gateway to create REST / WEBSOCKET API's and to store data on DynamoDb tables.
- Extensive experience with DevOps tools Docker and Kubertnetes building and manipulating multi-container applications and images; automating task through CI/CD Jenkins pipelines.
- Experience of monitoring, logging, analyzing, querying infrastructure resource logs through ELK stack (Elastic Search, LogStash and Kibana).
- Provisioned AWS resources using Cloud Formation & Terraform tools to deliver and manage desired deployment solutions.
- Installing, Patching and Automating cloud infrastructure through Ansible Configuration Management tool using Playbooks and YAML.
- Extensive use of building simple and multiple containers; deploying & running containers with Docker Swarm and Kubernetes Orchestrators.
- Building Data Lake Ecosystem on the AWS Cloud such as setting up Big Data Processing frameworks (EMR, Apache Spark, Hadoop), Analytical Framework (AWS Kinesis, Athena) and Data Warehousing (Amazon Redshift).
- Extensive experience on networking concepts such as VPC, Network ACL's / Firewalls, setting up public and private subnets and NAT Gateways.
- Provisioned Cloud monitoring services such as Cloud Watch, Flow logs, CloudAlarms and SNS to proactively monitor and trigger alarms automatically.
- Built highly available, scalable and fault-tolerant applications using AutoScaling Groups, ELB, and Route 53.
- Built Hybrid Cloud Infrastructure to connect with on-premises data centers through Amazon Direct connect, VPN Gateways or through VPC peering for connection between two AWS VPC.

- Knowledge of Serverless Architecture (AWS Lambda) API Gateways and Step Functions.
- Extensive experience on storage services- S3 and Glacier creating buckets, Life Cycle Policies, CRR, Versioning and implementing bucket policies / access control lists for granting access to the buckets.
- Implementing security at all levels IAM privilege management, creating security groups at EC2 instance level, and enforcing NACL at subnet level, WAF, AWS Shield.
- Securing data at Rest and Transit and implementing AWS encryption such as KMS, Cloud HSM and customer managed keys.
- Experience in Linux Administration –BASH scripting, patching, updating and deploying software releases.
- Adept in end-to-end development of software products from architect, requirement gathering, designing, coding, testing, implementation and transition.
- Great mentor, listener and communicator with win-win negotiation skills.

Professional Development

- AWS Certified Solution Architect 2018
- TOGAF@9 for Practitioners Level 1 & Level 2 Trained.
- ARCGIS Server, ARCSDE & ARCGIS Server JavaScript API
- Certification in SAS Programming Essentials
- NoSQL Database MongoDB Certification

IT Skill Set:

Cloud	:	AWS, Microsoft Azure, Microservice Architectures
Technologies		
OS	:	Linux Administration (RHEL, Amazon Linux, Centos), Windows
		Administration, Bash and Shell Scripting.
Big Data, Data	:	Apache Hadoop, EMR, HDFS, YARN, Hive, Pig, Apache Spark, Amazon
Warehousing &		Redshift, Amazon Kinesis, Amazon Athena.
Real-time Analytics		
DevOps tools	:	AWS Opswork, CI/CD pipeline, Jenkins, AWS CodeCommit, AWS
		CodeBuild, AWS CodeDeploy, AWS CodePipeline, Atlassian BitBucket,
		GitHub repositories, Travis CI, AWS CloudFormation, Terraform, JIRA,
		Confluence, ELK Stack (Elastic Search, Kibana, LogStash)
Contatiner &	:	Docker CLI, Docker Daemon, Docker Hub, Docker Swarm and Kubernetes.
Orchestration Tools		
WebServers	:	IIS, Apache Tomcat, Nginx
RDBMS	:	Amazon RDS, Aurora, Oracle, SQL Developer, Oracle Spatial, ARCSDE,
		SQL SERVER 2008 Spatial, Oracle 11G, PL/SQL, TOAD
NoSQL Databases	:	MongoDB, Amazon Dynamodb,
Languages	:	ARCGIS SERVER JavaScript API (3.7), DOJO libraries (1.7), Google
		&Bing Map API's, ArcObjects Python, Visual Studio 2008, .NET
		Framework 3.5 / C#, ASP.NET, HTML, CSS, Node.js, Scala
GIS Software's	:	ArcGIS Enterprise (10.5), ArcGIS Portal, ARCGIS Desktop Pro & SERVER
		(10.5), GeoCortex Essentials (3.15) MapInfo 11.5, Map Basic, Collada 1.5
Open Source GIS	:	GeoServer(2.5.2), GDAL, OGR, OpenLayers, PostGIS, QGIS, Google Earth
ETLs	:	FME Software (2015), GeoKettle, FME SERVER, Informatica, AWS Glue.

Image Processing	:	ERDAS IMAGINE, ENVI
Generic tools	:	MS Word, Excel, Power Point, Project & Visio, MindMap, Business Objects

Experience

FastrProperty Enterprise Cloud Architect (AWS)

June 2019 - Present

- Built, migrated and integrated PAAS based Docker containers and services running on different VPC's on to a Single VPC.
- Delivered and Implemented optimised cost solutions for running PAAS, IAAS and SAAS services on AWS.
- Decommissioned & Integrated Docker container built on AWS Elastic BeanStalk on to a single Platform.
- Played as a Design Authority in implementing solution roadmaps for FastProperty.
- Reduced cost of spinning up Accelerated Graphic EC2 instances to support virtual desktop as opposed to Amazon Workspaces.
- Automated & provisioned solutions using CloudFormation tool to build, deploy, maintain and upgrade services for Dev, Stage and Prod Environments.

Curtis Fitch AWS /DevOps Solution Architect

Jan 2019 - June 2019

- Automated Deployment of Serverless microservices such as Lambda functions, APIGateways

 REST and WebSocket API's , Cognito Userpools, SQS Queues, IAM Roles and Permission boundaries using SAM Template and Cloud formation to DEV, UAT and PROD Environments.
- Successfully configured Jenkins on EC2 (Master) and integrated with AWS CI / CD Pipeline -AWS Code Commit, AWS Code Build (Jenkins Slave) and AWSCode Deploy for orchestrating the deployment.
- Wrote Jenkins Pipeline (Groovy) script for end-to-end automation by integrating with AWS CI/CD Services for hosting and deploying diamond bidding app on AWS Serverless Framework.
- Wrote Cloud Formation SAM Template (YML) and Buildspec.yml files to integrate backend services such as AWS Serverless Functions and AWS Serverless API, SQS and Cognito Authoriser through AWS CI-CD Pipelines.
- Built REST API Gateway through Open API (Swagger) Specifications.
- Provisioned Aurora MySQL RDS instance with a multi-AZ deployment and migrated datasets from MySQL to Aurora RDS.
- Built EC2 Instances by hosting Leafwork Test Automation framework and integrated with Jenkins CI/CD pipelines for end to end automation testing.
- Built Python scripts to create CloudFormation custom resources to issue AWS API token's through Certificate Manager and also provisioned VPC, EC2, Aurora RDS instances, Lambda functions and S3 bucket through cloud formation templates.
- Built Serverless API and Applications for web and mobile based bidding app using AWSlambda, Node.JS, API Gateway and Cognito.
- Enabled SSL certificate on S3 Bucket website for main domain (http://dbas.market) and subdomain (https://uat.dbas.market) using Route53, AWS Certificate Manager, and Cloud Front Distribution.

Forestry Commission System Solution Architect (AWS Cloud Architect)

November 2017 - Jan 2019

- Overseeing the Transition Work programme for Forestry Commission England.
- Successfully Designed, Migrated and Hosted Forestry Commission GIS (Felling License Online, LIS, MB, PR/EIA, MRS) & non-GIS Architecture (GLOS) on the AWS cloud/ Azure cloud
- Provisioned laaS digital services through cloud formation tools to automate processes and AWS resources on the cloud using JSON Template.

- Successfully implemented VPN networks between virtual networks and other remote office locations using Amazon CloudHub VPN.
- Built Docker multi-container stack for EAPC and FRM applications running on IBM Domino Server – creating images, building containers, creating docker network models and Orchestrator for deployment with multi-node Kubernetes clusters.
- Built and Deployed Containers and deployed on to the Elastic Bean Stalk Clusters.
- Created Multi-Containers pods through Deployment /Ingress controller objet for hosting GLOS application using NodeJS, React server, Redis server, worker server and PostgreSQL containers.
- Built AWS Lambda functions for creating back end services by integrating with API Gateway and storing the data on S3 bucket.
- Experience of using JIRA for updating, managing and logging issues throughout the SDLC and also integrating codes on GitHub repositories.
- Ensured security of the data hosted on the AWS is properly implemented across at all stages inside & outside the platform i.e. Data at Rest & Transit.
- Built Technical Architecture Artefacts such as "Baseline" & "Target" state of GLOS systems
 & Spatial Components using Microsoft Visio.
- Created CI/CD pipeline for GLOS software at different stages of GLOS software development life cycle.
- Built point in time disaster recovery plan for restoring services by creating snapshots and storing in S3 buckets.
- Supported Forest Services on the Procurement & Tendering process and providing technical guidance on choosing the third party suppliers - reviewing cloud architecture stacks.
- Migration of applications and data layers for Land Information Search, Map Browsers, Map Request Service, PR/EIA applications on the AWS cloud.
- Supported on the Spatial Data Management activities and supply of data through ESRI Map packages.
- Building and hosting Tree Health Mobile Survey App using AGOL ArcGIS Survey 123 & Collector App.
- Setting up Infrastructure, Platform Migration, System Migration and Application Migrations.
- Providing consulting services on GIS Architecture (ArcGIS Enterprise 10.5 and OpenSource Stacks) - guiding FC on GIS strategy roadmap developments & directions.
- Managing third party suppliers & vendors and price negotiations.

Network Rail / CSC GIS Solution Lead

July 2017 – September 2017

NR RINM427 Final Project:-

- Lead the team in integrating the Workbank Data layers from disparate data sources (PPS and Ellipse, CARRS, HAZARD Directory, Feature Extraction) to GEORINNM Viewers application to add value propositions and aid decision making process for NR Planners on & off- the field.
- Provided support on building logical model to store various spatial, non-spatial datasets related to Signalling Assets and built relationship class to associate related assets against Signals and rendering for visualisation in GEORINM Viewer.
- Managed on-shore and off-shore resources in terms of delegating the task based on requirement for RINM Final Phase Proof of Concept.
- Produced Artefacts such as OSD and DSD for Integration of Network Rail Ellipse Asset Management data to GeoRINM Viewer application through Asset Data linking process.

NR RINM Release-3 (A1) Project

: October 2016 to June 2017

- Played a key role in building Integrated Network Data Model replacing legacy GEOGIS Data into Oracle 12C platform using ETL /FME processes / scripts.
- Worked closely with database architect in the Design of logical and physical data model / schem's to load spatial and non-spatial attributes from GEOGIS and ELLIPSE ASSET Management systems.
- Built FME automation or reusable scripts to read, cleanse, transform and load NR track related datasets Track Attribution, S&C's, Junctions, Network Data Model and calibration of linear referencing model, Track Linear Events and Manage Responsibilty assets.

- Wrote FME custom transformer scripts for conversion Miles. Yards to Meters and to generate point and linear assets in JSON or other GIS formats using Track centre Linear Referencing model.
- Built FME SOA Services such as Jobsubmitter and Data Download services to interrogate the data from INM and EAM database systems to asynchronously load spatial data on to GEORINM Viewer web based spatial visualisation tool.
- Configured FME Server to run services based on priority settings or queue management process to route services to appropriate FME engines to maximise server resource availability and efficiency.
- Built FME reusable workspace which could be used for the Entire SDLC and tested across Development, Pre-Production and Production environments to support GO LIVE.
- Published FME services using Notification services to alert the end users in case success or failure of FME scripts to load data in the targeted environments.

NR USGIS Project: Buried Services Asset Data

August 2015 to September 2016

- Developed technical solutions to support new and existing requirements on addition of data layers for GEORINM Viewer application as part of ORBIS delivery programme.
- Wrote FME scripts for loading NR buried service and third- party utility company assets/ data layers that cut across NR Tracks across UK.
- Played a key role sourcing, building, processing, validating, and testing the FME workspaces for 50-60 Utility companies across UK and exposed Buried services layers as REST service to be consumed by GEOCORTEX for rendering the spatial data for visualisation.
- Designed FME Server Automation processes on Data Refresh Automation; PDF pack creation
 & Subscription functionality.

NR RINM EP3 & EP4 Project

April 2015 to July 2015

- Worked on building FME workbenches to create a reliable, clean and reusable spatial datasets for Enhancement Pack 4 to support GEORINM Viewer Application.
- Integration of WMS and WFS layers with Application Server Geocortex Essentials 3.15 and publishing sites for deployment via Silverlight Viewer.

British Telecom / Virtusa GIS Enterprise Architect

Jan 2015 - Mar 2015

- Wrote Architecture Design Document for replacing BT legacy system "PIPER" and contributed to the strategic roadmap for development new platform / infrastructure.
- Worked on building GeoHub Platform for British Telecom using Open Source GIS Technology Stacks - GeoServer, OpenLayers and QGIS.
- Built customised modules to create & load BT Plant network spatial data models using Python Plug-in to integrate with QGIS desktop.
- Managed offshore 8-10 members development team and provided technical guidance on the application development.
- Overseeing the ETL operations of the BT Plant & OS spatial data into Oracle Spatial RDBMS.

Kent County Council (KCC) GIS Solution Architect

Dec 2013 - Jan 2015

- Successfully lead the Migration of ArcGIS SERVER Enterprise implementation from 10.0 to 10.2.2 in development and production environments and hosted Multi-Machine GIS Server architecture for KCC.
- Configured and deployed ARCGIS for INSPIRE Desktop & SERVER Extensions and successfully integrated with Geoportal Server (1.25) for creating INSPIRE complaint VIEW, Download and Discover metadata map services.
- Created INSPIRE and GEOPORTAL complaint geodatabase templates on Oracle for successful implementation and publication of INSPIRE datasets and map services.
- Designed & Published WMS, WFS layers using ARCGIS Server and integrated into KCC customer facing WEB Mapping platform using ARCGIS JavaScript API, DOJO & .NET C#.
- Prototyped & Designed GIS WEB Mapping Application for KCC Internal use to allow users to create, edit, save & query spatial features in real-time over the web using WFS layer & subsequently storing the data on Oracle ARCSDE geodatabase.
- Performed spatial data ETL transformation in variety of formats and loaded them in ARCSDE

- Geodatabase using ARCGIS Data Interoperability tools.
- Built custom Geoprocessing, Geocoding and Geometry Models and Services to be consumed by WEB Mapping platforms for asynchronous processing of the data
- Integrated OGC-Complaint WMS Aerial Photography datasets as base maps layer into KCC web Map platform.
- Administered GIS Vector and Raster datasets on the ARCSDE geodatabase using Oracle 11g client and maintained according to standard process.
- Performed regular system health check and monitored Map Services using ARCGIS SERVER Manager.
- Managed ARCGIS licenses, users & groups; registered new map and data services; created web map template services.
- Successfully loaded OS ITN data to enterprise geodatabase using Productivity Suite and Network Analyst and performed various routing operations & network analysis to support client's requirement.
- Supported end users on GIS technical issues and resolved problems on a regular basis.
- Ensured smooth running of GIS datasets and Web Map Services in Development, Test & Live Environments.
- Worked with testing team to resolve defects logged on Application, unit tested code developed for user acceptance testing, developed deployment packages & documentations.

Environmental Resource Management (ERM) Ltd GIS Dojo/ JavaScript Developer / Consultant

Dec 2013- Jan 2014

- Built a custom XY Widget that allows user to enter coordinates & zoom to point of interest.
- Developed Metadata Widget that shows the metadata for the layers in the WMS & WFS services.
- Published custom print templates using ARCGIS SERVER Export Web Map Task geoprocessing service and integrated them to Print Widget to print web maps hosted on ARCGIS online.
- Customized the design and layout of ERM web mapping application hosted on ARCGIS Online.

FinaTel Technologies Limited - India

Freelance GIS Technology Architect / Consultant

2012 -2013

- Successfully managed the creation of Enterprise wide GIS Systems & Architecture Design using Open Source GIS Stacks (GeoServer, OpenLayers, Geowebcache, GeoExplorer, ExtJS).
- Published and Maintained OGC complaint Map(WMS) & feature (WFS) services from external formats & databases using GeoServer; built processes using WPS; styling of layers using SLD.
- Accelerated the delivery of basemap images and data by tiling and caching from GeoServer outputs.
- Administered Spatial Data from external formats using SQL Loader on the Oracle Spatial 11G SDO_Geometry.
- Played a key role in extracting, loading, transformation, validation & debugging of spatial datasets / geometries between Oracle databases using PL/SQL.
- Created and maintained spatial joins, metadata and spatial indexes for tables on the databases.
- Performed geometric processing buffering, relationships, analysis, combination & aggregate functions using spatial operators.

Everything Everywhere Limited - UK Senior GIS Consultant

Sept 2012 - Nov2013

- Designed Geospatial Mobile Network Visualization & Web Mapping Application using ARCGIS Server JavaScript API, DOJO, HTML and CSS.
- Experienced in designing user interface with Dojo Form Dijits, and manipulating datasets with DojoX DataGrid and Tree Dijits; display photo & images with DojoX widgets.
- Integrated external data such XML, JSON, CSV through the Dojo.data and Dojox.data API's and dynamically present them on the base maps to allow web editing, querying and display.
- Built Geocoding service through Locator Object such as AddressToLocation (Geocoding) and LocationToAddress (Reverse Geocoding) functions to identify location of interest to end users.
- Provided Consultancy advice and support on Geo-fencing the Mobile Network Global Cell ID's to

- provide geo-targeted Ad-Campaigns on the user mobile phones.
- Successfully procured & integrated the 2011 Census vector data by translating them to Population Density Raster surface map to feed into Network Prediction tool for accurate coverage estimation.
- Integrate AutoCAD drawings to GIS, carrying out all necessary geographic referencing & projection transformation in the process; preparation of OS Mastermap tiles for use in AutoCAD and ArcGIS.
- Ensured internal and external Live Coverage Checker Web Mapping Platforms are updated with most recent 4G network coverage maps & service level impacts against postcodes across UK.
- Played a key role in migration of several B2B and Corporate Business customer acquisitions projects - worth several million pounds by providing location specific network coverage solutions.
- Experienced in managing and negotiating with vendors to procure GIS datasets at low cost.

Everything Everywhere Limited Lead GIS Consultant

July 2010 - August 2012

- 4G Rollout: Provided excellent Programme support on the 4G / LTE deployment plans by generating weekly coverage maps to show progress of Geographic Roll out Plans, Backhaul solution challenges and their associated risk in Top 16 UK Cities.
- Authored, Published, Configured and Managed Spatial Datasets and Web Map Services using ARCGIS SEVER in web based environments.
- M2M Device Project: Played a key role in providing End to End GSM / GPRS Location based Coverage Solutions by analyzing 28 million Premises in 1.6 million UK postcodes through Spatial Modelling and Analysis to support Smart Meter Bidding process for Energy /Utility companies.
- Provided location specific Coverage solutions and Risk Mitigation strategies for Orange & T-Mobile Networks Merger Plans.
- **Geo-Marketing Proposition Project:** Migrated GIS datasets from disparate data sources and formats through Mapbasic, Model Builder and ETL methods (**FME**) to create a Centralized Repository of Spatial Feature Datasets & stored in ARCGIS File Geo-database.
- Geocoding Model: Built 2G and 3G network Mast Locator Object through ARCGIS Model Builder to facilitate automatic geocoding of the network sites across UK by creating single integrated Orange & T-Mobile network Portfolios.
- Traffic / Capacity Forecasting: Developed 2G and 3G Mobile Voice & Data Traffic Heat Maps by spreading Cell level traffic information and other Land use datasets to 100m Grid / Pixels through Raster Weighted overlay Analysis technique using Spatial Analyst.
- **Geo-Processing Model**: Created different Geoprocessing Models through ARCGIS Model Builder and Python scripts to support routine GIS tasks.
- **B2B Campaign Analysis Project:** Developed 2G and 3G Network coverage quality scorecards by assessing 100m grid Signal strength against 1.6 million postcodes following Merger of Orange & T-Mobile Networks to support prospecting campaigns through SalesForce.com and Online Channels.
- Provided End to End GIS solution on all aspects to support varying & changing business requirements.
- Managed Project Stakeholders (business & technical) needs & requirements by providing technical guidance, feasibility studies, Risk Modelling and define scope of business of solution through Raster and Vector Spatial Modelling techniques in ARCGIS Software.
- Worked with IT Architects and business stakeholders to ensure that the End to End technical solution is fit to purpose, cost effective and maintains or improves customer experience and operational performance.

Orange Personal Communications Limited GIS Consultant

June 2008 - June 2010

- Built Mobile Networks Live & Forecast Coverage footprints to offer Location based coverage Services to unit postcode level on Web Mapping Platform.
- Developed 2G & 3G Geographic Network Roll out & Coverage plans to support Strategic Roadmaps.
- Performed Geodemographic Analysis to derive location specific insights about Mobile networks service quality for 2G and 3G networks in 1.6 Million postcodes.
- Built Network Capacity Forecast Models by looking at existing Network voice and data traffic

- growth using exploratory data analysis, Regression, Time Series and Raster weighted overlay analytical techniques.
- Designed and Developed Geodatabase for Network Planning Team as a central data repository using MapInfo, Microsoft ACCESS, and SQL queries.
- Developed Geospatial Network Intelligent reports & maps to tracks competitor's coverage footprints across UK.
- Wrote Feasibility options, Review and Tactical solutions to programme board.
- Assisted Sales and Marketing teams on B2B and Corporate Acquisitions & Migrations, Sales Bids, Campaign analysis by providing intelligent maps and network insight reports.
- Defined GIS process documents & Workflows and mentored GIS knowledge to non-technical personnel's.
- Maintained up-to-date RAN Coverage insight reports and KPIs check for accuracy, data integrity and authenticity.

MapBasic Scripting

- Wrote several custom MapBasic Scripts to automate routine GIS tasks.
- Played a key role in consolidating legacy Mobile Networks Spatial Data Infrastructure and GeoMarketing layers through MapBasic scripts in support of Network Integration project.
- Reorganized Spatial Data file structures through MapBasic Scripts to build multiple Geo-Marketing propositions.

Tamil Nadu Agricultural University GIS Principal Research Analyst

2005 - 2006

- Successfully developed & delivered Geospatial Agricultural Land Information Systems for 32 Districts of Tamil Nadu State in India.
- Architected the logical and physical Data Design layers on the development of Spatial Data Infrastructure for National Soil Mapping Project.
- Managed spatial data management activities on procuring & sourcing of Photogrammetric Imageries, Spatial Data Quality & Accuracy Assessment and delivery of Digital Vector Products.
- Migrated, Administered and maintained Vector and Raster Spatial Datasets on the Spatial RDMBS using ESRI ARCSDE middle tier on the SQL Server.
- Provided support on photogrammetric image interpretation, Attribute validation along with Cartographic update, Geometric Merging, Data Cleansing, and Rendering of maps.
- Field surveyed with GPS Handsets for accurate coordinate Positioning and integrated with Spatial RDBMS.
- Managed and Lead a team of 4 GIS Analyst by providing technical assistance & support on Spatial Data Capture, Spatial data errors, Spatial Operations & Functions, SQL Queries.

Tamil Nadu Agricultural University GIS Senior Research Analyst

2003 - 2005

- Developed Land & Crop Suitability models for different Agro ecosystem using Spatial Analytics & Modelling techniques.
- Produced Agricultural Land Information insight reports on Soil Nutrient Management to feed information for Directors and Vice- Chancellor on disseminating key recommendations for farming community.
- Handled huge volumes of environmental geospatial datasets to derive insights on distribution of soil nutrient contents and subsequently offered crop suitability & soil nutrient recommendations & amelioration techniques.
- Pioneered on using Geostatistical & Spatial Analyst package on the ARCGIS Extensions to demonstrate areas of soil nutrient limitations through heat maps and hotspots maps.
- Became an expert in using ARCGIS Desktop tools, Spatial Data Management and Validation.

Education

Nottingham University: MSc in Geographic Information System – Merit, 2006-2007

- Tamil Nadu Agricultural University : PhD in Soil Science Distinction, 2001-2004
- Tamil Nadu Agricultural University: MSc in Soil Science Distinction, 1999-2001
- Tamil Nadu Agricultural University: BSc in Agriculture Distinction, 1995-1999

Personal

- Born in Tamil Nadu, India.
- Right to work: British Citizen
- Full Clean Driving License
- Interest: Cricket, Shuttle Badminton, listening music