Palaniappan Mohan

GIS Data Analyst | Software Developer

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Education

Technical University of Berlin
Oct 2018 – Jun 2022
M.Sc. in Geodesy and Geo-Information Science
Berlin
(Specialized in GIS Spatial Analysis, Remote Sensing and Deep Learning)

- *Thesis Topic:* Transportation mode learning from GPS trajectories using ConvLSTM Artificial Neural Network (ANN)

B. S. Abdur Rahman University
May 2010 – Apr 2014
B.Tech. in Electronics and Communication Engineering
Chennai
(Major in Digital Image Processing, Satellite Communication, and Computer Networks)

Experience

Geocledian GmbH
Oct 2021 – Dec 2021
GIS Software Developer | intern
Landshut

- Implemented interactive web app dashboards, maps, and widgets from REST APIs for registered agricultural parcels across **Europe**
- Evaluated spatiotemporal data using python and generated the correlations for agronomic weather parameters
- Integrated three seasonal time series phenology markers into a chart widget to measure peak values in vegetation analysis

Omio GmbH
Jan 2019 – Aug 2019
Data Analyst | student professional
Berlin

- Accelerated multiple tasks including data integration, feature extraction, and geodata mapping of 70+ **Global** travel providers
- Analyzed the trends & patterns of spatial data using geoprocessing functions. Executed the switch of the database from SQL to JSON
- Improved the performance by tuning the database queries and fixed bugs in over 50K+ datasets. Conceptualized in network map navigation and routing

Cognizant Technology Solutions
Jul 2016 – Aug 2018
GIS Programmer Analyst
Chennai

- Built map production, data preparation, visualization & analysis of vector and raster GIS data using geospatial tools
- Trained on **DEM** models, **3D** city models, **LiDAR** point clouds, and represented satellite data in multi-formats

Programmer Analyst Trainee
Feb 2015 – Jun 2016

- Excelled in Oracle JDE-ERP techno-functional analysis, database administration & transform tool
- Identified key data issues by fixing anomalies, and automated a manual process to save 2+ hours of work per week

Technical Skills

Areas of Interest: Spatial Data Analytics, Web Development, Remote Sensing, Cartography, Machine Learning, Business Development, Data Management

Languages & Frameworks: C, Python, SQL, GeoDjango, Vue.js, HTML5, CSS, C++, JavaScript

Geospatial Libraries: GDAL, TensorFlow, GEOS, Leaflet, Geopandas, Shapely, Cesium ion, Scikit-Learn, Keras, Numpy, Matplotlib

Tools and Technologies: QGIS, ArcGIS Pro, FME, PostgreSQL, ArcMap, City Engine, Mapbox, Power BI, Microsoft applications, BREC, JDE, Matlab, JIRA, SNOW, Kanban, Torkin, Visual Studio

Languages

English ●●●●◐
Full professional proficiency

German ●●◐○○
Limited working proficiency

Tamil ●●●●●
Native or bilingual proficiency

Certifications

- **FME** Professional
- **ESRI**: Python & ArcGIS online
- Imagery and Remote Sensing
- Mapping and Visualization
- **ISRO - IIRS** Geo-processing using Python
- **NASA** Earth observations for energy management

Experience

Hibrise Technologies
iOS Developer

Dec 2013 – Aug 2014
Chennai

- Launched two iOS applications — My-Bookkeeper and Code Mania
- Performed tasks on scrum methodologies, handled GitHub as a source control management during the development phase

Other Projects

MSHACK2022 Hackathon
Digital Hub münsterLAND

Münster
23 Sep – 24 Sep 2022

- Developed a 3D model of the city of Münster to support smart city plan & tourism through open-source data within 24 hours

WeareVR Aerospace Hackathon
The Drivery

Berlin
04 Aug – 17 Aug 2022

- Collaborated with multi-cross-disciplinary teams and designed an innovative virtual reality Helicopter cockpit in 2 weeks

Academic Projects

Master Thesis in: Transportation mode learning from GPS trajectories using ConvLSTM Artificial Neural Network
Technical University of Berlin

Berlin
Jan 2022 – Jun 2022

- Goal: To analogize neural networks with deep learning methods by analyzing and modeling user's modes of travel using python
- Created dask frameworks, NumPy, and pandas for pre-processing raw datasets & extracted 7+ features from GPS trajectories
- Determined optimal values and evaluated the performances of ConvLSTM with benchmark models of transportation learning

Altitude detection of GPS data using DEM
Technische Universität Berlin

Berlin
Apr 2020 – Sep 2020

- Identified the altitude difference between the GPS tracks of car/bus and ground points using mosaic DEM

Memberships/Works

Member of Association for Geographic Information (AGI)

Certified FME Professional and listed in **Wall of Fame** from Germany

Volunteer at Humanitarian OpenStreetMap team

Hobbies

Travelling
For new experiences

Sports
Cricket, Chess & Pingpong

Photography
Landscape and Nature

Cooking
Tweak and blend cuisines

Volunteering

Serve the City Berlin
Distributing foods & sorting clothes

Mentorship
On sharing language skills with refugee kids

Raising Funds
For medical emergencies and natural disasters

Blood Donation
Participated in blood donation camps in India