

PALANIAPPAN MOHAN

GIS | Data Analyst | Software Developer

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WORK EXPERIENCE

Geo-Data Analyst | Intern

Geocledian GmbH

October 2021 – December 2021 Landshut, Germany

- Implemented interactive web application dashboards and widgets from REST API (Ag|Knowledge) for registered parcels across **Europe**
- Integrated 3 types of seasonal time series phenology markers into a chart widget to measure peak values in vegetation analysis
- Evaluated spatiotemporal data using geopandas and generated correlations for agronomic weather parameters using matplotlib
- Delivered an interactive data validation dashboard by creating 3 multi-split views including list, summary, and map visualization
- Tools & IDE:** Python, HTML5, CSS, JavaScript, Vue.js, GitLab

Data Analyst

Omio GmbH

January 2019 – August 2019 Berlin, Germany

- Processed multiple tasks including data integration, feature extraction, and geodata mapping of 70+ **Global** travel providers
- Improved the performance by tuning the database queries. created GIS datasets and fixed bugs in over 100K+ datasets
- Executed the switch of the database from SQL to JSON and prepared documentation, UAT, and deployment tasks
- Conceptualized in network map routing, navigation, and workflow for different travel partners and 4+ transportation modes
- Tools & IDE:** PostgreSQL, JSON, Mapbox, Kanban, Torkin

GIS Programmer Analyst

Cognizant Technology Solutions

July 2016 – August 2018 Chennai, India

- Developed map production, digitization & analysis by classifying vector and raster GIS data using Geoprocessing tools
- Involved in the location-allocation analysis for setting up new sites in 7+ major cities of **India**
- Trained on **DEM** models, **3D** city models, **LiDAR** point clouds, and represented satellite data in multi-formats
- Spearheaded 3 junior peers, and provided knowledge transfer with technical assistance
- Tools & IDE:** QGIS, ArcGIS pro, PostGIS, JIRA, SNOW

EDUCATION

M.Sc. in Geodesy and Geo-Information Science (Major in GIS & Deep Learning)

Technische Universität Berlin

October 2018 – June 2022

Berlin, Germany

B.Tech. in Electronics and Communication Engineering

B. S. Abdur Rahman University

May 2010 – June 2014

Chennai, India

IT SKILLS

Proficient in: ArcGIS Pro, QGIS, Python, C, PostgreSQL, HTML5, CSS, javascript, JDE EnterpriseOne, Octave, Matlab, Microsoft applications

Familiar with: FME, Power BI, Vue.js, City Engine, GDAL, json, Google Earth Engine, BREX, C++, Xcode

LANGUAGES

English: ● ● ● ● ●

Tamil: ● ● ● ● ●

German: ● ● ● ● ●

Malayalam: ● ● ● ● ●

STRENGTHS

Eye for Detail

Adept Communicator

Inquisitive & Organized

Collaborative

Self-Propelled

Solution Oriented

Programmer Analyst Trainee

Cognizant Technology Solutions

📅 February 2015 – June 2016 📍 Chennai

- Proficient in Oracle JDE-ERP Techno-Functional Analysis. Worked in report creation and project development
- Identified key data issues and accomplished root cause analysis by fixing anomalies. Automated a manual process and saved 2+ hours of work per week
- Trained in transform - generated Finance reports: invoices, letters, and remittance statements
- **Tools & IDE:** Oracle JDE, Transform

iOS Developer | Intern

Hibrise Technologies Private Ltd

📅 December 2013 – August 2014 📍 Chennai

- Launched two iOS applications – My-Bookkeeper and Code Mania
- Performed in Scrum Methodologies, handled GitHub as a Source Control Management in the development phase
- **Tools & IDE:** Xcode, Objective-C

ACADEMIC PROJECT

Master Thesis in: Transportation mode learning from GPS data using Deep learning methods

Technische Universität Berlin

📅 November 2021 – June 2022 📍 Berlin

- Goal: To analogize artificial neural networks using GPS data by deep learning modeling and classifying user's different modes of travel
- Created dask frameworks, NumPy, and pandas libraries for pre-processing bulk Microsoft Geo-life datasets. Further, extracted 7+ features from raw GPS trajectories
- Implemented sci-kit learn, deep learning libraries Keras, and tensor flow for training the neural networks
- Evaluated the performances of ML algorithms to identify user's travel modes
- **Tools & IDE:** Python, FME, Mendeley

Altitude detection of GPS data using Digital Elevation Model

Technische Universität Berlin





📅 April 2020 – September 2020 📍 Berlin

- Developed a model to identify the altitude difference between the GPS tracks of car/bus and ground points (DEM)
- **Tools & IDE:** ArcGIS Pro, Google Earth Engine




CERTIFICATIONS

- ❖ ESRI - ArcGIS online
- ❖ ESRI - Python
- ❖ Mapping and Visualization
- ❖ Geo-planner: evaluating plans
- ❖ ISRO - IIRS Geo-processing using Python
- ❖ NASA Earth observations for energy management





MEMBERSHIPS/WORKS

-  Member of Association for Geographic Information (AGI)
-  Certified FME Professional and listed in the FME community's **Wall of Fame** from Germany
-  Mapping volunteer at Humanitarian OpenStreetMap team to contribute global sustainable developments
-  Designed VR helicopter model using Unreal & City engines for Berlin aerospace hackathon

HOBBIES

-  **Travelling**
For new experiences
-  **Sports**
Cricket, Chess and Pingpong
-  **Photography**
Landscape and Nature

VOLUNTEERING

-  **Serve the City Berlin**
Distributing foods and sorting clothes to people experiencing homelessness
-  **Mentorship**
On guiding and sharing language skills with refugee kids
-  **Raising Funds**
For medical emergencies and natural disasters
-  **Blood Donation**
Participated in blood donation camps in India