

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 web application dashboards and functionalities from REST API (Ag|Knowledge) for **European** agricultural lands
- Integrated 3 seasonal time series phenology markers from REST API into a chart widget to measure vegetation analysis
- Generated visualization and geospatial operations for weather monitoring & satellite datasets using matplotlib and geopandas
- Designed a geodata dashboard for the web GIS application by creating 3 views including list, summary, and map visualization
- Predicted environmental trends, evaluated spatiotemporal data and identified correlations to solve business problems
- Tools & IDE:** Python, HTML, CSS, JavaScript, Vue.js, GitLab

Data Analyst

Omio GmbH

January 2019 – August 2019 Berlin, Germany

- Performed multiple tasks including data integration, feature extraction, and geodata mapping of 70+ **Global** travel providers
- Conceptualized in network map routing, navigation, and workflow for different travel partners and 4+ transportation modes
- Improved the performance to 5% by tuning the existing database queries and implemented fixing bugs in large datasets
- Executed the switch of the database from SQL to JSON and prepared documentation, testing, UAT, and deployment tasks
- Tools & IDE:** PostgreSQL, JSON, Mapbox, Kanban, Torkin

GIS Programmer Analyst

Cognizant Technology Solutions

July 2016 – August 2018 Chennai, India

- Contributed to GIS operations using Geo-processing tools. Map production & digitization, and classification of geodata
- Involved in the location-allocation analysis for setting up new sites in southern cities of **India**. Enhanced in development and research
- 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, Postgres, 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

STRENGTHS

- Eye for Detail Adept Communicator
- Inquisitive & Organized Teamwork
- Creative Collaborative & Multi-task
- Self-Propelled Solution Oriented

SKILLS

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

Familiar with: FME, ArcMap, City Engine, Vue.js, GDAL, json, Google Earth Engine, BREC, C++, Xcode.

LANGUAGES

- English: ●●●●●
- Tamil: ●●●●●
- German: ●●●●●
- Malayalam: ●●●●●

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 the 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
- Worked in Scrum Methodologies, handled GitHub as a Source Control Management in the development phase
- Focused on user experience and possessed strong commitment to team environment
- **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 study, understand and analogize the results of various deep learning algorithms by modeling and classifying user's different modes of travel, based on GPS
- Created dask frameworks 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 for the identification of travel modes
- **Tools & IDE:** Python, FME, Mendeley, Microsoft Office

Altitude detection of GPS data using Digital Elevation Model

Technische Universität Berlin




April 2020 – September 2020 Berlin

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




CERTIFICATIONS

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





HOBBIES

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

MEMBERSHIPS/WORKS

-  Member of Association for Geographic Information (AGI)
-  FME Certified Professional and listed on the FME Community's **Wall of Fame** from Germany
-  Mapping volunteer at Humanitarian OpenStreetMap team to contribute global sustainable developments
-  Proposed VR helicopter model using Unreal & City Engine for Berlin Aerospace hackathon & 3D City model of Münster for MSHack22

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