

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.
- Integrated the time series phenology markers from REST API into a chart widget based on Vue.js.
- Designed a geodata visualization dashboard for farm management application by creating the list, summary, and map views.
- Performed visualization and spatial operations for weather monitoring & satellite datasets using matplotlib and geopandas.
- Analysed trends and identified correlations to solve business problems & evaluated spatiotemporal & time series data.
- Tools & IDE:** Python, HTML, CSS, JavaScript, Vue.js, JSON, GitLab.

Data Analyst

Omio (Formerly Go Euro) GmbH

January 2019 – August 2019 Berlin, Germany

- Performed multiple tasks including data integration, feature extraction, and geodata mapping of international travel providers.
- Conceptualized in network map routing, navigation, and workflow for different travel partners and modes of transport.
- Managed the switch of the database from SQL to JSON and performed documentation, testing, UAT, and deployment tasks.
- Improved the performance of the datasets by tuning the existing database queries.
- 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, and performed digitization & classification of geographic data sets.
- Trained on **DEM** models, **3D** city models, **LiDAR** point clouds, and represented data in multi-formats.
- Responsible for fixing bugs in large datasets in the database.
- Involved in the location-allocation analysis process for setting up new sites. Assisted in development and research support.
- Spearheaded 3 junior peers and was responsible for the knowledge transfer and technical support in the team.
- Tools & IDE:** QGIS, ArcGIS pro, Arcmap, 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 Institute of Science and Technology

May 2010 – June 2014

Chennai, India

STRENGTHS

- Eye for Detail
- Adept Communicator
- Creative
- Collaborative & Multi-task
- Inquisitive & Organized
- Teamwork
- Self-Motivated
- 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

Native or Bilingual proficiency

German

Limited working proficiency

Tamil

Native or Bilingual proficiency

Programmer Analyst Trainee

Cognizant Technology Solutions

February 2015 – June 2016

Chennai, India

- Proficient in Oracle JDE ERP Techno-Functional Analysis. Worked in report creation and Supported in development and deployment tasks.
- Identified key data issues and provided root cause analysis by fixing the anomalies to improve the performance. Automated manual process and saved 4+ hours of work per week.
- Trained in Transform Application - performed Finance documentation: invoices, report evaluation, letters, and remittance statements.
- **Tools & IDE:** Oracle JD Edwards Enterprise-One, Transform.

iOS App Developer | Intern

Hibrise Technologies Private Ltd

December 2013 – August 2014

Chennai, India

- Launched two iOS applications using Xcode – My Bookkeeper and Code Mania.
- Worked in Scrum Methodologies, handled GitHub as a Source Control Management in the development phase.
- Possessed strong commitment to team environment dynamics with the ability to contribute.

ACADEMIC PROJECT

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

Technische Universität Berlin

November 2021 – June 2022

Berlin, Germany

- Goal: To study, understand and analogize the results of various deep learning methods for modeling and classifying user's different modes of travel such as bus, car, walk, and bike using GPS data.
- Used dask frameworks and pandas libraries for pre-processing the bulk Microsoft Geo-life GPS datasets. Further, extracted more features from raw GPS trajectories.
- Implemented sci-kit learn, deep learning libraries Keras, and tensor flow for training the neural networks in Python jupyter notebook.
- Evaluated the performances of Deep learning algorithms for the identification of travel modes.

Altitude detection of GPS data using Digital Elevation Model

Technische Universität Berlin

April 2020 – September 2020

Berlin, Germany

- Developed Height detection techniques to identify the altitude difference between the GPS tracks of car/bus and GPS ground points (DEM) using GIS applications and further performed deep learning methods.
- **Tools & IDE:** ArcGIS Pro, Google Earth Engine, Python.

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 Table tennis



Photography

Landscape and silhouette shots.

MEMBERSHIPS/WORKS



Member of Association for Geographic Information (AGI).



FME Certified Professional and the name listed on the FME Community's **Wall of Fame** from Germany.



Mapping Volunteer at Humanitarian OpenStreetMap Team to contribute to global sustainable developments.



Proposed VR helicopter cockpit prototype 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 disaster funds online.



Blood Donation

Participated in blood donation camps in India.