Palaniappan Mohan

GIS Data Analyst | Software Developer

mohan@campus.tu-berlin.de | +49 1517 1537 663 | Franz-Mehring-Platz 2, 10243
Berlin, Germany | mohan-pal | palaniappan.mohan

EDUCATION

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

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

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

EXPERIENCE

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

- Implemented interactive web application dashboards, maps, and widgets from REST APIs for registered parcels across **Europe**
- Evaluated spatiotemporal data to uncover agronomic weather parameter correlations for precision agriculture and crop yield prediction
- 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
Berlin

- Accelerated multiple tasks, including data processing & integration, feature extraction, and geodata mapping for 70+ **global** travel providers
- Analyzed the trends & patterns of geospatial data using geoprocessing functions. Conceptualized in network map navigation and routing
- Improved efficiency by optimizing database queries and resolving anomalies in over 50K+ datasets. Executed database switch from SQL to JSON

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

- Built map production and performed documentation & 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

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

TECHNICAL SKILLS

Areas of Interest: Spatial Data Analytics, Web Development, Database Management, Data Science, Cartography, Remote Sensing

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, Git, JDE, Oracle, Matlab, JIRA

LANGUAGES

English ●●●●◐
Full professional proficiency

German ●●◐○○
Limited working proficiency

Tamil ●●●●●
Native or bilingual proficiency

CERTIFICATIONS

- **FME** Professional
- **ESRI**: Python & ArcGIS online
- ArcGIS API for JavaScript
- Imagery and Remote Sensing
- **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
- Utilized scrum methodologies and 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 Münster to support the smart city plan and tourism using open-source data within 24 hours

WeareVR Aerospace Hackathon
The Drivery

Berlin
04 Aug – 17 Aug 2022

- Collaborated with multi-cross-disciplinary teams and successfully designed an innovative VR helicopter cockpit with a 3D city model in two 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 and extracted 7+ features from GPS trajectories
- Determined optimal values and evaluated the performance of ConvLSTM with benchmark models of transportation learning

Altitude detection of Vehicle GPS data using DEM
Technical University of Berlin

Berlin
Apr 2020 – Sep 2020

- Identified the altitude difference between the GPS tracks of cars/buses 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