



JACOB SAPPHIRE

[PORTFOLIO](#)



9384630838



sapphireajs@gmail.com



Chennai, Tamil Nadu 600055

About Me

I am Jacob Sapphire J C, a GIS Analyst & Web Developer with hands-on experience in spatial analysis, morphometric studies, data visualization and automation using AI and Python. I work with ArcGIS Pro, QGIS, Google Earth Pro, Blender (3D), and Python (Flask).

Education

Bachelor of Science (CGPA of 6)

Geography Geography, Tourism and Travel management..

Madras Christian College 2020 - 23

Master of Science (CGPA of 7.00)

Applied to Geography

University of Madras 2023- 25

Skills

ArcGIS Pro

Erdas Imagine

QGIS

Web Designing

Blender 3D

Adobe Suite

MS Office

Python

Figma

Language

- English
- Tamil
- Hindi

Projects

2025

Morphometric Analysis of Agniyar River Basin, Tamil Nadu — University of Madras

- Analyzed basin morphometry using GIS & RS techniques in ArcGIS Pro and QGIS.
- Processed SRTM DEM data to delineate watershed and extract drainage networks.
- Evaluated runoff, erosion risk, and hydrological characteristics.

2025

AI Background Remover Web Application

- Built an AI-based image background remover using U²-Net and Rembg.
- Developed with Flask, HTML, CSS, and JavaScript for seamless web integration.

Internships

May–July 2024

National Transportation Planning & Research Center (KSCSTE-NATPAC), Trivandrum

- Performed spatio-temporal crash analysis using ArcGIS Pro and statistical tools.
- Created 3D visualizations and analyzed AI camera impact on road safety.

May–July 2022

MAPe Solutions, Chennai

- Digitized ~377 buildings and assigned height attributes using QGIS and ArcMap.
- Applied 3D Analyst and Spatial Statistics tools for visualization and validation.

Area of Interest

- Geographic Information Systems (GIS) & Remote Sensing
- Spatial Data Analysis & Mapping
- Transportation Planning & Road Safety Analytics
- Morphometric and Hydrological Modeling
- 3D Visualization & Building Vectorization
- Web GIS and Geospatial AI