

Education

(TIME FRAME)

- **University of Pennsylvania** (Philadelphia, USA) **Masters in City Planning** [STEM Program] (Concentration : Smart Cities) (Sep 2015 - May 2017)
- **University of Pennsylvania** (Philadelphia, USA) **Certificate in GIS and Urban Analytics** (Concentration : Geo-Spatial Analytics) (Sep 2016 - May 2017)
- **School of Planning and Architecture** (New Delhi, India) **Bachelors in Architecture** (Concentration : Architecture and Housing) (Aug 2006 - May 2012)
Best architecture school in India

Recent Professional Experience (overall experience > 7 yrs)

(TIME FRAME)

- **Transportation Analyst,**
Managing Director's Office of Transportation,
Infrastructure and Sustainability,
Mayor's Office, City (Government) of Philadelphia
Led the data analysis of City's crash and transportation network data to support Vizion Zero Program of the City
Project manager for a grant-funded research program to develop a data architecture and internal data sharing protocols to improve management of Central Philadelphia's multimodal transportation infrastructure
Leading development of regulations and implementations on data-privacy, dockless bike share and smart curbspace management in the City. (Jul 2017 - Present)
- **Mapping Assistant,**
Univ. of Pennsylvania, Philadelphia, US
Supported PhD students and professors in choosing and implementing the best tools for analysis of their data. (Jan 2017 - May 2017)
- **Senior Design Consultant, Vishwanath Asso.**
Bangalore, India (Consultants to Delhi Metro Rail Co.)
Team Leader for design consultancy to DMRC, for High Speed Railway project and two metro stations in India (Jan 2015 - Jun 2015)

Specializations / Skill-set (Academic Coursework + Professional Experience)

- **Geo-Spatial Analytics** Satellite Imagery || Google Earth Engine || Environmental Modeling || Agent Based Modeling
- **Statistical Analytics** Predictive Modeling in RStudio || Classification and Regression based analysis || Machine Learning
- **Database** Neo4j / Neo4j Spatial || SQL || Hadoop (Hive) || PostGIS || PostgreSQL
- **Data Visualization** d3 || Node.js || HTML/ CSS / Javascript || Carto || Mapbox GL
- **Urban Planning** PPP Strategy || Large Scale Development || Urban Economics and Finance
- **Architecture** Design & Project Management || AutoCAD || Revit || Ecotect || Adobe Suite CC
- **Transportation** Design & Analysis || Vissim || Synchro || Traffic Modeling

Selected Data Driven Projects

(EXPLORATIONS)

- **Spatial optimization of drone center locations using K-mean algorithm** ArcGIS (Raster & Vector) || Python
- **Satellite Image Classification using Machine Learning Algorithm** Google Earth Engine || Random Forest
- **Model to predict optimum cycling path** ArcGIS (Network Analyst & Raster)
- **Model to leverage Spatial footprint for predicting Travel patterns** Markov Chains || Neo4j || Node.Js
- **Clustering pattern evaluation for Philadelphia Census blocks (based on Census data)** RStudio || K-Mean Clustering || ArcGIS
- **Model to Predict Flood Inundation in the city of Calgary, Canda** RStudio || ArcGIS || Machine Learning
- **Predicting future urban development in London (Predictive and Prescriptive analytics)** RStudio || ArcGIS || Machine Learning
- **Full Stack Data Pipeline- Neo4j Data Server + Node.js Web Server + Mapbox / JS / HTML / CSS** Neo4j || Node.js || EJS || Js / HTML
- **Agent Based model to show efficiency of ride-share service** Netlogo
- **Vision Zero - High Injury Network (Crash Data Analysis for City of Philadelphia)** ArcGIS || RStudio

Leadership & People Skills

- **President of the Penn Graduate Consulting Club** (University of Pennsylvania)
- **Swimming Coach at University Recreation Center** (University of Pennsylvania)
- **Playing 11 member of the College Soccer team** (School of Planning and Architecture)