Aseem Deodhar

Phone 857-424-9471
Email aseemvdeodhar@gmail.com
Address Greater Boston
Portfolio aseemdeodhar.com

Work Experience

Metropolitan Area Planning Council

Research Analyst - I
Dec 2020 - Present
Boston, MA

- Automate ETL pipelines to process the 2020 Census and 1 & 5 year ACS (American Community Survey) data, and CHAS Housing Survey data to be more human readable for planners and the general public to use in their work. Reduced processing time from several weeks to one work week with potential to reduce time.
- Contributed spatial and statistical analyses to MAPC's recommendations on Section 3A of the Massachusetts Zoning Act to support the development of transit oriented multifamily housing development in Greater Boston.
- Developed and periodically maintain the {mapcdatakeys} R-package to have standardized geographic keys and crosswalks for various geographic levels in Massachusetts such as municipalities, census tracts, blocks, and block groups.
- Developed the {mortgager} R-package to calculate costs related to home-ownership for MassHousing's Commonwealth Builder attainable home-ownership program.
- Respond to various data engineering and analysis requests from planners in other departments such as transportation, public health, and housing.
- Presented mapping and data visualization techniques to students in the Big Data for Cities class (PPUA 5262) at Northeastern University in Spring 2021, and Fall 2021.

ARGO (Applied Research in Government Operations)

Civic Data Research Intern
Jul 2020 - Dec 2020
Remote

- Using ArcGIS, R, AutoCAD & Sketchup developed a 'Covid-19 Safety Index' for sidewalks in the City of Boston, to develop insights on sidewalk carrying capacity across Boston neighborhoods. Created an entire 'Data to Design' product by creating urban design solutions based on the Safety Index for 4 distinct urban morphological typologies within the City of Boston.
- Developed an index to identify vulnerable communities in Massachusetts sharply affected by unemployment and health disadvantages due to the (covid-19) crisis.
  (keywords: index creation, spatial analysis, time series, product management)

Boston Area Research Initiative

Graduate Research Assistant

Jan 2019 - Jun 2019
Dec 2019 - May 2020
Boston, MA

- Analyzed origin-destination data from the Transit App and vehicle position data from MBTA GTFS feeds, to predict route and mode preferences of commuters across the network.
- Identify existing and develop new transit corridors between essential workers; homes and work location for swift, isolated movement during pandemics. developed in the wake of the current Covid-19 crisis.
  (keywords: database management, proprietary API handling, movement analysis)

Massachusetts Bay Transportation Authority

Program Implementation & Evaluation Assistant

Jul 2019 - Dec 2019
Boston, MA

- Assist analysts in the OPMI (Office of Performance Management and Innovation) by writing R-scripts to contribute transit data insights to the MassDOT Tracker performance report.
- Developing a SQL integrated R-script to compare transit trips with equivalent single-occupancy car trips measuring CO2 emissions, time taken, and miles traveled. Sourced data from MBTA's ODX model and revenue department databases.
- Using R and graphic layout software, created visualizations of insights on pedestrian and bicycle crash data sourced from the MassDOT IMPACT crash portal to present to the Massachusetts Bicycle and Pedestrian Advisory Board.
  (keywords: data visualization, script integration, time series, proximity analysis)

Jana Urban Space Foundation

Associate Urban Designer
Jun 2017 - Mar 2018
Urban Design Trainee
Nov 2016 - May 2017
Bengaluru, India

- Led a team of 3 on research surveys for the redevelopment and reorganization of Bangalore's historic retail/wholesale market.
- Redesigned streets in central Bangalore to comply with the Tender SURE equitable street network design and execution model.
- Part of team to redesign a transit exchange terminal in central Bangalore. Project involved reorganization of existing bus terminal, accomodating the proposed underground metro station, and organizing movement corridors between these two nodes with minimal disturbance.
- Surveyed 35 streets in central Bangalore (around 50km in total length) to prepare base drawings for equitable road design under the Tender SURE design and execution model.

Education

Northeastern University

Master of Science in Urban Informatics
Spring 2020
Boston, MA

- Studying the Effect of public transportation on Somerville's urban growth using the 'R' statistical language.
- Examining Somerville's Infrastructure using various spatial analysis tools within ArcGIS.
- Understanding the Social and Infrastructural Factors Relating to Spatial Inequality in Pune, India in Python with a focus on the OSMNx (Open Street Maps, NetworkX) package.
- Graphical Visualisation of the Pune City Tree Census 2015 using R, and Adobe CS.

Savitribai Phule Pune University

Bachelor of Architecture
Spring 2016
Pune, India

- Analyzing the potential of civic institutions as catalysts for urban rejuvenation. (keywords: urban design, architecture, survey analysis, seismic analysis)
- Questioning Urban Paradigms - Studying the Changing Face of a Historic Market District. (keywords: survey analysis, overlay study)

Skills

R , Python , SQL, Spatial Data Analysis, GIS platforms, Data Visualization, Urban Planning, Urban Design, Architecture, Adobe Creative Suite, Statistical Data Analysis, GTFS, Spatio-statistical Research