

EDUCATIONAL QUALIFICATIONS

Year	Degree	Institute	Performance
2017-2022	BS-MS Mathematics & Scientific Computing	Indian Institute of Technology Kanpur	7.5/10.0
2015-2016	Grade 12 th (RBSE)	PCIA, Jaipur	93.6%

PROFESSIONAL EXPERIENCES

Inmobi Technology, Bengaluru (Software Engineer)

July '22 – present

- S2Cell Geospatial Integration:** Proficiently implemented S2Cell creation from polygon data in KML format, constructed an S2Cell map, and established an S2Cell cache for augmenting IP and lat-long requests with enriched location data, including country, state, city, and zip code information
- Infrastructure Management:** Successfully orchestrated Kubernetes clusters and Azure Virtual Machine Scale Sets (VMSS) using Terraform, effectively overseeing clusters with a minimum QPS of 2 million and a maximum of 3.25 million
- Monitoring and Visualization:** Spearheaded the setup of Prometheus and Grafana for monitoring Kubernetes clusters, enhancing system observability and performance analysis.
- Monitoring System Migration:** Seamlessly integrated Prometheus monitoring, replacing the incumbent Graphite monitoring system for Java services implemented in Guice, ensuring a more robust and scalable monitoring solution.
- Deployment Orchestration:** Skillfully onboarded and integrated the Harness deployment platform for all services, streamlining the deployment pipeline and enhancing release management.
- System Upgrades:** Led Ubuntu and Java upgrades and integrated Tomcat into legacy services, ensuring the continued reliability and compatibility of older systems with modern technologies

Summer Intern, IvyHomes, Bengaluru

May '21 – July '21

Predictive Modeling	Acquired hands-on experience in training models using location, time, and apartment features to forecast apartment prices in Bangalore.
Data Acquisition	Conducted web scraping operations using PyCharm and Selenium to gather data and guideline values from platforms like Just Dial and the Kaveri Portal.
Metabase Integration	Set up a Metabase environment for the database, providing an efficient and user-friendly solution. Additionally, designed and implemented dashboards in Metabase to enhance accessibility, flexibility, and performance.
Data Pre-processing	performed comprehensive data pre-processing tasks, including data cleaning, attribute transformation, and dimensionality reduction, employing various techniques to ensure data quality and accuracy.

PROJECTS

COVID-19 Case Prediction Model (Time Series Analysis)

- Analyzed daily confirmed COVID-19 cases in India, focusing on identifying seasonal and time trends, as well as assessing covariance and correlation patterns
- Employed statistical techniques such as Auto-Correlation Function (ACF), simple moving smoothing, Exponential Moving Smoothing, and Dickey-Fuller test for comprehensive data analysis
- Successfully employed ARIMA and SARIMA models to predict daily new cases, achieving a remarkable reduction in Root Mean Square Error (RMSE) to 9.04% through the optimization of the Akaike Information Criterion (AIC)

THESIS

COVID-19 Case Prediction Model (Time Series Analysis)

- Explored the realm of spatial econometrics specifications to investigate the propagation of the recent coronavirus pandemic
- Conducted a systematic examination of spatial lag, spatial error, and spatial autoregressive combined models to assess the role of spatial structure in influencing geographical disparities in COVID-19 period prevalence
- Executed country-level analyses, providing substantial evidence on the interconnections and significance of relative locations in aiding local decision-makers during the pandemic

TECHNICAL SKILLS

C/C++, Java, Python, HTML, CSS, JavaScript, PyCharm, OOPs, Harness, Azure, Jupyter Notebook, Matlab, IntelliJ, Postgres, MySQL, SQL, Kubernetes, Grafana, Prometheus, SpringBoot, Ubuntu, Docker

COURSEWORK

Data Structure and Algorithms, Database Management Systems, Probability and Statistics, Statistical Inference, Time Series and Analysis, Applied Stochastic Processes, Statistical Simulation & Data analysis