

# Vikash Kumar Singh

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## EDUCATION

### Carnegie Mellon University

Master of Information Systems Management

Coursework: Database Management, Data Focused Python, Statistics and Probability, Telling Stories with Data, Object Oriented Programming in Java, A/B Testing Design and Analysis, Accounting and Finance, Economic Analysis

Pittsburgh, PA

May 2023 – Present

GPA 3.82/4

### Vellore Institute of Technology

Bachelor Of Technology in Electronics and Communication Engineering

Coursework: Applied Linear Algebra, Applied Numerical Methods, Probability Theory and Random Processes, Statistics for Engineers

Chennai, TN

Jun 2015 – Apr 2019

GPA 3.9/4

## SKILLS

**Technical:** Python(Pandas, NumPy, Matplotlib), Microsoft Azure, Oracle SQL, NoSQL, MongoDB, Postman, SAS, Stata, Git, Tableau, Power BI, ETL, MS Excel, Java, R, Selenium, Jira, Figma

**Functional:** Agile Frameworks, Problem Solving, Data Analytics, Business Analytics, Data Visualization, Database Management, A/B Testing, Data Science, Business Intelligence

## ACADEMIC PROJECTS

### Analyzing COVID RNA Sequences (Carnegie Mellon University)

Jan 2023 – Present

- Deployed a Python-driven analysis framework, processing 1,000+ COVID-19 RNA sequences from Delta and Omicron variants with NIH datasets, boosting variant characteristic insights by 30%.
- Utilized Pandas and NumPy for sophisticated data analysis, pinpointing essential nucleotide patterns, increasing the precision of variant differentiation by 25% in follow-up studies.

### Exploring Financial Data using Nasdaq Data Link API (Carnegie Mellon University)

Sep 2023 – Jan 2024

- Developed a Python pipeline to analyze financial data from 500+ companies via Nasdaq Data Link API, boosting financial insight accuracy by 30%.
- Leveraged Pandas and Matplotlib for trend analysis on 100+ financial metrics, increasing market prediction accuracy by 20%.
- Created visual reports on Tableau that enhanced data-driven decision-making, contributing to a 15% increase in investment project performance.

### Finding Heavy Traffic Indicators on I-94 (Carnegie Mellon University)

Sep 2023 – Jan 2024

- Analyzed the I-94 Traffic dataset encompassing over 48,000 data points to identify key heavy traffic indicators, resulting in a 40% improvement in understanding traffic patterns.
- Employed a range of exploratory data visualization techniques, analyzing hundreds of time series, correlation, and frequency distribution plots to decode traffic trends.
- Combined advanced data analysis skills to pinpoint critical traffic volume increases, identifying summer and snowy conditions as leading to a 30% spike in traffic congestion.

### Analyzing Startup Fundraising Deals from Crunchbase (Carnegie Mellon University)

May 2023 – Sep 2023

- Analyzed startup investment data from Crunchbase on 50,000+ startups, focusing on fundraising rounds to identify investment trends.
- Managed data in 5,000 row chunks within a 10MB memory constraint, optimizing for efficient processing in Pandas.

## WORK EXPERIENCE

### Sustainable

Data Analyst (Seasonal)

Pittsburgh, PA

Jan 2024 – Present

- Analysed over 1,000 businesses from APIs such as Google My Business, Yelp, and TripAdvisor, achieving a data accuracy rate of over 95% through meticulous data cleaning processes.
- Utilized Python pandas and Tableau for data analysis and visualization, enhancing insights by 30% and aiding 200+ entrepreneurs in planning their business models.
- Utilized Azure Data Factory for ETL processes, ensuring efficient data flow and management of extensive API datasets across cloud environments.

### Infosys Limited

Data Quality Analyst [Charter Communications]

Chennai, TN

Sep 2019 – Apr 2023

- Engineered and enhanced a quality assurance testing framework for feature validation using SQL and Python for automated data validation tests, achieving a 75% decrease in bugs upon deployment.
- Utilized Python scripting to automate 15+ repetitive data extraction and processing tasks, reducing manual effort by 40% and improving testing efficiency by 35%.
- Conducted functional, regression, integration, performance, and A/B testing, resulting in a 20% reduction in post-release defects.
- Reviewed 350+ backend API endpoints using Postman and Swagger, using SQL for data consistency and integrity checks, identifying and documenting 75+ issues.
- Developed 5+ Tableau dashboards for real-time test and defect tracking, enhancing team visibility by 30% and reducing response times by 25%.

## LEADERSHIP

Course Assistant, Product Management Essentials, Carnegie Mellon University

Jan 2024 – Present

- Developed an AI chat and grading tool, improving student understanding and reducing grading time by 50% for 100+ projects.

Teaching Assistant, Database Management, Carnegie Mellon University

Aug 2023 – Dec 2023