

## SAKSHAR DESAI

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Visa Status: F-1 OPT

### Objective

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Motivated statistics graduate student seeking a full-time position to apply my analytical and problem-solving abilities in industry.

### Education

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**MS in Statistics**, Virginia Tech, Blacksburg VA August 2022 - December 2023  
GPA: 3.97/4.0

**B.Tech in Civil Engineering**, IIT Delhi, India August 2018 - May 2022  
GPA: 7.3/10

### Technical Skills

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Programming Languages:	R, Python, SQL, HTML
Data Science:	tidyverse, numpy, scikit-learn, pandas, NLTK, spaCy
Software:	SAS, JMP, MATLAB
Other Tools/Frameworks:	Git, Flask

### Work Experience

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**Collaborating Biostatistician**, Center for Biostatistics and Health Data Science, Virginia Tech February 2024 - present  
- Performing data cleaning and statistical analyses to support various research projects that come through the Center.

**Associate Collaborator**, Statistical Applications and Innovations Group, Virginia Tech August 2023 - December 2023  
- Providing statistical advice and analysis to Virginia Tech researchers through collaboration meetings.

**Graduate Research Assistant**, Virginia Tech June 2023 - August 2023  
Project: Spatio-Temporal Analysis of Chicago Crime Data | Advisor: [Dr. Jyotishka Datta](#)  
- Identified structural breaks and seasonal patterns in the time series of monthly crime counts.  
- Improved baseline model's BIC by 6% by modeling seasonal variation.  
- Created visualizations of spatial distribution of different crime types.

**Graduate Teaching Assistant**, Virginia Tech August 2022 - May 2023  
Courses: Statistics for Engineering Applications, Intermediate Data Analytics/ML, Theoretical Statistics  
- Graded assignments and held weekly office hours to help students understand statistical concepts.

**Tech Intern**, Turtlemint Insurance, Mumbai, India June 2021 - August 2021  
- Constructed a pipeline for extracting keywords from content items using keyword extractors such as YAKE and TopicRank.  
- Created an insurance/financial glossary via web scraping and utilized it to filter relevant keywords.  
- Designed a UI using Flask and HTML templates to allow users to upload files and visualize associated keywords.

### Projects

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**Statistical Collaboration**, Virginia Tech | Advisor: [Dr. Jennifer Van Mullekom](#) March 2023 - May 2023  
- Collaborated with linguistics students and provided statistical advice.  
- Developed a mixed effects model and conducted Tukey's multiple comparison tests to conclude that accent-switching causes language processing delays.

**Travel Time Analysis**, IIT Delhi, India | Advisor: [Dr. Manoj M](#) August 2021 - November 2021  
- Collected transit data (static and real-time) of Delhi bus transport network; performed hypothesis testing to show unreliability of static schedule.  
- Developed a Multiple Linear Regression model to predict total travel time along a bus route and improved it by incorporating Jam Factor (JF) into the model to increase adjusted  $R^2$  by 11.3%.

### Relevant Courses

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Probability and Distribution Theory, Statistical Inference, Regression Analysis, Statistical Programming Packages, Design of Experiments (DOE), Linear Models Theory, Statistical Collaboration, Bayesian Statistics, Data Analytics, Time Series Analysis