Nikhil Chinchalkar

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EDUCATION

Cornell University, College of Arts and Sciences

Ithaca, NY

Computer Science and Economics Major, Data Science Minor

GPA: 4.22 (A+=4.3)

PROFESSIONAL EXPERIENCE

Princeton University Research Computing, Data Visualization Analyst | Princeton, NJ

Jun.-Aug. 2024

Advanced work in data visualization designed to aid the Princeton community in high-impact research

- Worked with several large and complex datasets totaling around 30 GB of data, to create 13 cutting-edge animations and interactive visualizations in **R**, pushing the limits of **ggplot2**, **gganimate** and **plotly**
- Created detailed <u>tutorials</u> on how to reproduce the visuals, forming a 'textbook' on advanced animations in **R**
- Led an interactive workshop on 'Making Animated Visualizations in R' for 17 researchers from Princeton University
- Designed and implemented a comprehensive online guide for producing dynamic and animated visuals using vector and raster **GIS data** in **Blender** and executing rendering processes on a **HPC cluster/supercomputer**

DATA SCIENCE PROJECTS

Recent projects incorporating a variety of datasets to generate advanced models and visuals

Election Demographics, Project Lead | Ithaca, NY

Aug.-Dec. 2024

- Analyzed the influence of demographic factors on a person's likelihood to vote based on 20 years of election data
- Incorporated advanced machine learning techniques in a linear regression, to obtain a statistically significant model that showed an increase in voting likelihood based on age, race, education, and income
- Thoroughly documented all steps of the project and interpretations of findings in a research paper

Campaign Trails, Project Lead | Ithaca, NY

Sep.-Nov. 2024

- Led a 5-person team that analyzed Presidential candidates' campaign visits to predict future election outcomes
- Produced 6 animated maps using **R** to visualize candidates' travel over time, using **gganimate**, **ggplot2**, and **GIS data**
- Created an online website to display findings in an interactive format using **JavaScript**

NYC Trees, Researcher | Princeton, NJ

Jul.-Aug. 2024

- Modeled NYC's trees in **Blender** to show socioeconomic differences in the city using 20 GB of vector and raster data
- Developed an understanding of GIS data and Blender Python API, and worked with Princeton's Adroit-Vis cluster
- Extensively documented work to facilitate the application of similar modelling techniques to other projects

Billboard Sentiments, Project Lead | Ithaca, NY

Ian.-May 2024

- Led a 7-person team that analyzed trends in music sentiment since 1960, using **Genius API** and **NLTK** in Python
- Created advanced interactive visualizations in **R** with short- and long-form analytical writeups about key trends
- Conducted weekly project check-ins to monitor progress, address obstacles, delegate tasks, and keep team motivated

CAMPUS INVOLVEMENT

Cornell Data Journal, Executive Vice President | Ithaca, NY

Sep. 2023-Present

- Created four interactive Notebooks detailing the basics of Python, SQL, and regressions for New Member Education
- Taught 30+ members from Notebooks and self-authored 'Making Animated Visualizations in R' textbook resource
- Delivered personalized teaching specific to club member's baseline experience and knowledge

Big Red Sports Network, Baseball Analyst | Ithaca, NY

Jan. 2024-Present

- Conducted in-depth analysis of data from Synergy Baseball to gain insights on opposing players in scouting reports
- Utilized **R** extensively for data analysis and visualization, to build accurate and insightful presentations
- Presented research findings and conducted weekly Q&A sessions with Cornell's baseball coaching staff

Emerging Economies Association, Finance Director | Ithaca, NY

Sep. 2023-Present

- Led planning and execution of 5 social events for 25+ club members, including scouting locations and booking venues
- Managed a \$9,000 club budget to sponsor social outings, deal with third-party vendors, and organize fundraising events

SPECIALIZED SKILLS

Software: Python, R, Java, SQL, Tableau, Blender, JavaScript, HTML, CSS, QGIS, Adobe Premiere Pro, Linux Command Line, Excel, Google Sheets, Visual Basic Assistant, Google Scripts, Adobe Illustrator

Languages: Professional-level Spanish (New Jersey State Seal of Biliteracy)