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 complex datasets (totaling around 30 GB of data and 60 million csv rows) to create 13 cutting-edge animations and interactive visualizations in **R**, pushing limits of **ggplot2, gganimate** and **plotly**
- Created detailed tutorials 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   **Jan.-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

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

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
- Produced weekly slide decks using **PowerPoint** for general club meetings

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

SPECIALIZED SKILLS

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

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