

# Nikita F. Amin

## Biostatistician and Data Analyst

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Biostatistician that prioritizes thoroughness, creativity, and scientifically rigorous analysis, offering a unique blend of biological insight and analytical skills to inform evidence-based decision-making in the life sciences

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### SKILLS

- **Technical:** Data Analysis | Data Visualization | Data Cleaning | Web Scraping | Pivot Tables | Data Modeling | Data Wrangling | Big Data Utilization | Linear Regression | Machine Learning | Statistical Modeling
- **Scientific and Laboratory:** Clinical Research | Data Collection | Scientific Writing | Research Design | Biomedical and Biological Sciences | Health Communication | Clinical Data Analysis
- **Programming Languages and Software:** JavaScript | R (programming language) | Python | SQL | Tableau | PostgreSQL | pgAdmin | Power BI | Microsoft 365 | Excel | PowerPoint
- **Python Libraries/Tools:** Pandas | NumPy | Matplotlib | Seaborn | Beautiful Soup | Plotly | Jupyter

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### EDUCATION

General Assembly | Data Analytics Immersive | December 2023

Bachelor of Arts | Biology, English | University of Virginia | Charlottesville, Virginia; May 2023

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### EXPERIENCE

GENERAL ASSEMBLY | Data Analytics Immersive | September 2023 - December 2023

- Successfully completed 12 weeks (400+ hours) of expert led instruction in professional data cleaning and analysis across platforms
- Mastered skills including data cleaning, data visualization, SQL, Python, regression models, classification models, web-scraping, APIs, and statistics through labs, projects, and in-class work
- Completed five in-depth projects using real-world data and techniques/programs including Excel, SQL/pgAdmin, Tableau, PowerBI, and Python in order to synthesize in-class learning

University of Virginia Medical School | Kendall Lab Student Assistant | Charlottesville, Virginia | June 2021 - October 2021

- Assisted in high level research investigating the cellular mechanisms of enterohemorrhagic E. coli infection in humans through use of mice animal models by managing and maintaining operation of a BSL 2 safety level lab
- Gained an in-depth understanding of the clinical research process from conception to publication
- Applied and honed in-class learning by performing and interpreting the results of microbiological analyses such as PCR, qPCR, Western Blotting, flow cytometry, and sequencing, etc.

Hoo4Hoo Advocacy | Executive Officer | Charlottesville, Virginia | May 2021 - February 2023

- A student advocacy club at the University of Virginia focused on supporting fellow students through mutual aid
- Led and participated in successful campaigns in student health, wellness, and housing rights while spearheading a membership recruitment drive becoming the largest chapter in the U.S., with 200+ signups
- Maintained social media by designing original graphics, created an organization website utilizing both Wordpress and HTML

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### PROJECTS

Predicting Parkinson's Disease Progression

- Formulated and performed an independent capstone analysis of Parkinson's disease clinical records and protein expression data in order to predict and better understand disease dynamics and progression of symptoms over time
- Performed a Python-drive analysis utilizing Pandas, gaining a comprehensive understanding of the data in order to better understand the disease dynamics and contribute to the advancement of precision medicine
- Utilizing advanced machine learning algorithms, fine-tuned model parameters, and conducted cross-validation to optimize performance and minimize generalization
- Expanded on the results of the analysis by employing peer-reviewed journal articles from background research in order to emphasize the key proteins highlighted in both scientific papers and analysis/modeling

United Kingdom's Gender Pay Gap

- Completed an exploratory analysis through SQL of the gender wage gap in the U.K. utilizing data from over 10,000 companies pertaining to the difference in hourly compensation between male and female employees
- Presented quantifying metrics measuring the wage gap and possible contributing factors with visualizations made in Tableau, providing a foundation for understanding and addressing the gender pay gap in the United Kingdom

ADHD Symptom Alleviation Using Magnesium Supplementation | September 2017 - May 2019

- Designed, collected, and analyzed over 900 data points in order to determine effectiveness of magnesium supplementation in *Drosophila melanogaster* with induced ADHD
- Found statistically significant evidence of symptom alleviation in both genetically and environmentally induced ADHD, providing a possible, safer alternative to Adderall
- Earned 1<sup>st</sup> place (2019) and 2<sup>nd</sup> place (2018) in category at Loudoun County Regional Science and Engineering Fair