Vasudev Menon

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EDUCATION

North Carolina State University   Raleigh, NC
Bachelor of Science in Computer Science | Cum. GPA: 4.0/4.0   *Expected Spring 2026*
- Coursework: Calculus I/II/III + Differential Equations, Software Development, Discrete Mathematics for CS, Data Structures & Algorithms

EXPERIENCE

Data Scientist in Training Intern   June 2021 – Feb. 2022
Rice University & North Carolina State University   *Remote*
- Extrapolated and researched COVID-19 sequence data using R.
- Utilized one-hot-encoding, Principal Component Analysis, and Multidimensional Scaling to examine and transform the DNA sequence data.
- Applied dimensionality reduction algorithms to come up with research findings.
- Observed key differences between over 100,000 virus strains by examining resultant cluster formations.
- Presented research at the Junior Science and Humanities Symposium.

Field Organizer   Aug. 2020 – Nov. 2020
National Senatorial Committee   *Raleigh, NC*
- Developed a Python Selenium based program to automate a survey process that played a strategic role contacting over 600,000 voters and gathering crucial political data for an NC Senator.
- Lead a team of 60+ Field Organizers responsible for calling and contacting voters to collect voter data.

Customer Service Clerk   March 2022 – June 2022
Harris Teeter   *Morrisville, NC*
- Provided excellent customer service to customers while leading the team on the store's front end.
- Trained on every aspect of front end store management.
- Worked with management to fulfill customer's desires.

Software Development Intern   June 2020 – Aug. 2020
Troodon Technology   *Remote*
- Helped develop software to help track healthcare & hospitality workers.
- Worked on creating a mobile application using the AngularJS framework.

PROJECTS

NCDMV Appointment Automation | *Python 3, Selenium, Git*   June 2021 – Present
- Developed software to automatically find a DMV appointment and register a user
- Utilized Python Selenium based automation to detect when individuals unregister from DMV license appointments then automatically registers users at the respective timeslot.
- Maintained and updated the software as changes were made to the DMV website and utilized Git for version control

Fuel Economy & Automobile Safety Project | *R, RStudio, GGPlot, Excel*   Sep. 2021 – Feb. 2022
- Utilized National Highway Traffic and Safety Administration APIs and Government Fuel Efficiency APIs and developed an R program which gauges the regression between the two variables.
- Utilized different regression methods and techniques to assess the relationship between fuel efficiency and automobile safety.
- Produced a research paper with the findings.

Abu Dhabi Airport Employee Management System | *Python 3, Flask, Git*   July. 2022 – Present
- Developing a web-based Python software to upgrade and refine the current, outdated, employee management system at Abu Dhabi International Airport.

Howling Wolves Initiative   Oct. 2022 – Present
- Working on developing an automated lighting system that decorates NC State University's Wolf Plaza following major school events to promote school spirit.

TECHNICAL SKILLS

Languages: Python, Java, C/C++, R, PowerShell, SQL
Frameworks: JUnit, Selenium, Angular, Flask, Django, Metasploit, Firebase API
Developer Tools: Git, Eclipse, MySQL Workbench, CheckStyle, PMD, Jenkins, RStudio, GGPlot, R Tools, EclEmma, Visual Studio
Libraries: pandas, NumPy, Matplotlib, cryptography, selenium
Generic Skills: Harvard CS50, HTML, CSS, Word, Excel, PowerPoint, Google Docs/Slides/Sheets
Concepts: Data Structures, FSAs, Number Systems, Boolean Algebra, LISP, Digital Electronics, Assembly Language, Graph Theory, Diffie-Hellman Key Exchanges, Hash Algorithms, One-hot-encoding, Principal Component Analysis (PCA), Singular Value Decomposition (SVD), Multidimensional Scaling (MDS)