Vasudev Menon

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Education

North Carolina State University Raleigh, NC

B.S. in Computer Science & B.S. in Mathematics | Cum. GPA: 4.0/4.0 *Expected Spring 2026*

- Coursework: Software Development, C Programming, Data Structures & Algorithms, Calculus I/II/III + Differential Equations, Discrete Mathematics, Linear Algebra
- Awards: Dean's List All Semesters

Experience

Undergraduate Deep Learning Research Intern May 2023 – August 2023

North Carolina State University *Raleigh, NC*

- Developed numerous shell scripts to assist in running large scale experiments analyzing state-of-the-art algorithms such as Batch Normalization in Deep Learning. Trained numerous models that helped show an decrease in training time with networks with Batch Normalized layer on a GPU platform.
- Conducted data analysis for an NSF funded project and aided in the design of statistical experiments to determine the effectiveness of an intelligent tutoring system in a peer tutoring environment.
- Conducted literature reviews, stayed updated with the latest advancements in deep learning, and integrated relevant findings into ongoing research.

Customer Service Clerk March 2022 – June 2022

Harris Teeter *Morrisville, NC*

- Led a team of over 20 employees to provide excellent customer service to customers on the store's front end.
- Trained on every aspect of front end store management and collaborated closely with upper management to fulfill customer desires to elevate the overall shopping experience.

Data Science Intern June 2021 – Feb. 2022

Rice University & North Carolina State University *Remote*

- Conducted research on an NSF funded project to extrapolate and research COVID-19 sequence data using R.
- Utilized numerous state-of-the-art statistical algorithms to examine DNA sequence data to come up with research findings that observed key differences between over 100,000 virus strains.
- 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.

Projects

EmoNet: Emotion Detection with Deep Learning | *Tensorflow, Keras, OpenCV, Git* Jul. 2023 – Jul. 2023

- Designed and implemented a Convolutional Neural Network (CNN) architecture to train an emotion classification model using TensorFlow and Keras on a GPU platform.
- Integrated OpenCV to enable users to input their own facial data for real-time emotion analysis.
- Utilized Git for version control.

Fantasy Football Trade Calculator | *Streamlit, Sleeper API, Git* Aug. 2023 – Present

- Developed a Fantasy Trade Calculator application using Streamlit, integrating data from the Sleeper API.
- Implemented additional tools such as weekly team projections, start/sit calculators, and a fantasy season simulator.
- Engineered an intuitive and user-friendly UI/UX.
- Utilized Git for version control.

NCDMV Appointment Automation | *Python 3, Selenium* June 2021 – June 2022

- 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.

Technical Skills

Languages: Python, Java, C/C++, R, PowerShell, SQL
Tech/Tools: Git, Eclipse, MySQL Workbench, Jenkins, RStudio, R Tools, Visual Studio Code, JUnit, Flask, Streamlit, LaTeX
Libraries: TensorFlow, Keras, pandas, NumPy, PyTorch, Matplotlib, Cryptography, Selenium
Generic Competencies: HTML, CSS, Microsoft Suite, G Suite