MANISH NIURE

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EDUCATION

Howard University - *Washington, DC* *Aug 2021 - May 2025*

- *Bachelor of Science in Computer Science* *CGPA: 4.0/4.0*
- **Relevant Coursework**: Applied Data Science, Artificial Intelligence, Operating Systems, Linear Algebra, Fundamentals of Algorithms, Discrete Math, Computer Networks, Large Scale Programming, Database Management Systems, Cal I, Cal II

Google Tech Exchange - *Exchange Program* *Spring 2023*

- An academic program where **Google Engineers** teach computer science topics to students
- **Relevant Coursework**: Software Engineering, Product Management, Intro to Machine Learning, Data Structures and Algorithms.

Technical Skills - Java, C, C++,C#,.NET, Python, Java, Ruby, Flask, React, MATLAB, Javascript, HTML/CSS, Jinja, MongoDB, SQL, DynamoDB, Git, VIM

WORK EXPERIENCE

Meta, *Menlo Park, CA* *May 2024 - Aug 2024*

Software Engineer Intern - ENT framework

- Developed and optimized an **API** for internal testing using **PHP** on the EntFramework Infrastructure Team, ensuring robust validation and data integrity across **diverse storage systems** like TAO, ZippyDB for social graphs
- Expanded **API adoption**, with over **40% of engineers** at Meta utilizing it for testing their data across all major platforms, streamlining workflows and boosting productivity
- Collaborated closely with senior engineers to design and implement a solution

Howard University, *Washington, DC* *Oct 2023 - April 2024*

Research Assistant - Phase Based Motion Processing

- Leveraged phase-based motion processing techniques using **MATLAB** and **Python** to detect **subtle vibrations** in physical infrastructure, invisible to the naked eye
- Contributed to determining the **natural frequency** of structures from the recorded video to assess potential failure risks

Amazon Web Service, *East Palo Alto, CA* *May 2023 - Aug 2023*

Software Development Engineer Intern - AWS Lake Formation

- Actively collaborated with the AWS LakeFormation team, contributing to multiple pivotal projects by leveraging **Java, Python,** and **Ruby** in AWS environments
- Utilized Python and Ruby to **automate the deployment process** step Model Change Management (MCM), reducing the creation time from **3 hours to just 5 minutes** and increasing the **efficiency by 95%**
- Updated the API by integrating a **timestamp feature** into data cell filters using Java, enhancing data traceability and strengthening platform data integrity

Howard University, *Washington, DC* *May 2022 - Dec 2022*

Research Assistant - AIM HEAD and Alexa Project

- Tested the YALE datasets of around **100k images** and used it for facial and ear recognition using **Python**
- Achieved a **90%** accuracy rate for facial recognition algorithms and 75 % for ear recognition algorithms by testing and refining them with editing software like Adobe Photoshop to add occlusions, adjust lighting, and enhance image quality

PROJECTS

Custom Shell *Oct 2023*

- Developed a command shell from scratch in **C**, implementing core features inspired by widely-used shells such as sh, bash, csh, and tcsh
- Applied problem-solving skills to address challenges in parsing commands, managing processes, and ensuring compatibility with standard shell functionalities

Disaster Tweet Classifier - *Google Tech Exchange* *May 2024*

- Developed a disaster tweet classification model using **TensorFlow, Scikit-learn, Pandas, and NumPy**, significantly improving its accuracy through comprehensive hyperparameter tuning

Local Wiki - *Google Tech Exchange* *May 2023*

- Built a wiki application using **Python, Flask, HTML, CSS and Jinja** for users to browse through information about local places in their area. Deployed the app on Google Cloud Platform using CI/CD
- Designed and lead a feature to support searching, sorting and filtering of wiki pages to enhance user experience
- Collaborated with a team of 3 students and reviewed each other's design docs and merge requests

Digital Notebook June 2022

- Developed a custom digital notebook application using **Python**'s Tkinter for the user interface and **SQLite3** for database management, tailored to efficiently manage and store college assignments
- Implemented features such as search, categorization, and sorting to enhance note management and ensure seamless retrieval and organization of academic materials

ACTIVITIES

VTHACKS 12 Virginia Tech University Hackathon-Team Work Sept 2024

- Developed **SideQuest** in React, a web app using machine learning to match user preferences with location types via Universal Sentence Encoder 4
- Implemented a Reinforcement Learning agent to optimize trip recommendations based on multiple factors, integrating with Google Maps API

Google HBCU Hackathon - Team Lead March 2023

- Lead a team of 4 in building a housing app using HTML, CSS, Flask, and Swift. Presented the prototype to Google Engineers