Netra Nyaupane

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Education

Bachelor of Science in Computer Science, Fisk University **(GPA: 3.83)** **Expected Graduation: May 2026**
Relevant Courses: Introduction to CS I and II, Calculus (I and II), Data Structures and Algorithm, Advanced Front-End Development (ReactJS), Statistics, Discrete Mathematics, Computer Architecture and Organization, Operating System, Theory of Computation, Theory of Programming Languages, Database Management System, Linear Algebra, Real Analysis
Honors and Awards: Fisk Executive Leadership Scholar, Fisk Outstanding Scholars and Leaders, Honors Scholar, Emerging Scholar Program

Technical Skills

Python, Java, JavaScript, HTML/CSS, ReactJS, QBasic, MySQL, Figma, Spring boot, NodeJS, MongoDB, C/C++, Assembly x86, Firebase, AutoCad, Angular, R, Git, NumPy, Pandas, ExpressJS, Docker, Latex, MATLAB

Work Experiences

National Science Foundation – Software Development Intern **March 2024 – Present**

- Collaborated with professors from GeorgiaTech to contribute to the CollabNext tool supported by NSF TIP Directorate, aiming to create a knowledge graph enhancing visibility for HBCUs and emerging researchers.
- Built and maintained a full-stack web application with **ReactJs** and **Flask**, enhancing user interaction and improving data visibility for over 500 users.
- Developed over **50** interactive graph visualizations with the **Orb library**, enabling dynamic data exploration and improving data analysis efficiency by **40%**.
- Implemented reusable **React** components to optimize the deployment process, reducing development time by **35%** and setup time by **30%.**

Fisk Altitude Achievement Missile Team - Research Intern **August 2023 – Present**

- Contributed to the Propulsion Team in NASA's University Student Launch Initiative (USLI), collaborating with 8 team members to represent Fisk University among 56 selected institutions nationwide.
- Designed and optimized a rocket model using **AutoCAD** and **OpenRocke**t software, ensuring compliance with certification and flight requirements through advanced simulation techniques.
- Developed and programmed a microcontroller system to collect data from the Inertial Measurement Unit (IMU), accurately mapping the rocket's final landing position on a gridded image of the launch site.

Atlanta University Center Consortium – PFx: Data for Social Impact Mentor **July 2024**

- Mentored a team of 5 students, achieving **100%** project completion and delivering successful presentations on data-driven insights for foster care challenges.
- Reviewed and analyzed over **10,000** data entries from NDACAN, effectively meeting all learning objectives and identifying key trends affecting African American youth aging out of foster care in Georgia.
- Increased data analysis quality by **30%** through daily feedback and guidance using **Python**, **R**, and **Tableau**, ensuring accurate and insightful outcomes.

Fisk University – Teaching Assistant **August 2023 - April 2024**

- Assisted professors to teach **Calculus I** and **Calculus II** courses to 150 students. Learned to better explain the concepts, held office hours, graded assignments, provided detailed feedback, and received **95%** performance rating.

Personal Projects and Hackathons

JPMorgan Chase – Data for Good Hackathon **April 2024**

- Collaborated with a team of 4 to develop a data-driven solution for a nonprofit organization, resulting in a **25%** improvement in the accuracy of their predictive model.
- Analyzed and visualized large datasets using **Python**, **SQL**, and **Tableau** to develop a ranking algorithm, improving neighborhood selection accuracy by **35%** for **Ordinarie Heroes'** expansion.
- Applied Ward's clustering algorithm to validate findings, achieving a **25%** increase in the reliability of neighborhood recommendations for the nonprofit's next area of focus.

ChatApp (GitHub) **January 2024 – April 2024**

- Developed a real-time chat application using the MERN stack and Socket.io, supporting over **100+** concurrent users with efficient real-time messaging and minimal latency.
- Employed **ReactJs** for the frontend, **NodeJs** for the backend, **MongoDB** for data storage, and **Socket.io** for real-time communication in the chat application.
- Designed an intuitive and responsive user interface with **ReactJs**, resulting in a **40%** increase in user engagement and seamless accessibility across various devices.

BlackJack Game (Github) **August 2023 – December 2023**

- Developed a fully functional **Python-based** Blackjack game with over **500** lines of code, demonstrating advanced understanding of **object-oriented programming**, game logic, and **algorithm design**.
- Designed and implemented a user-friendly, text-based interface that allows players to interact seamlessly with the game, providing clear instructions, prompts, and real-time feedback for an engaging user experience.
- Incorporated core game mechanics such as card dealing, player actions (hit, stand, double down), and win conditions, ensuring accurate game flow and adherence to traditional Blackjack rules.

Google HBCU Hackathon (GitHub) **October 2023**

- Developed a web application to connect students with various opportunities, alumni, and experts.
- Implemented using **React framework**, collaborating with 3 team members under supervision of Google engineers.
- Increased user engagement by **25%** and improved data security by **20%** through opportunity filtering and efficient Firebase integration.
- Awarded with **Honorable Mention** for the innovative approach and commitment to functionality.

Clubs and Activities

Fisk Computer Science Club, Fisk Rocket Science Team, HBCU CONNECT, Google Developer Student Club at Fisk, International Mathematics Olympiad (2020), BE Smart Hackathon by American Airlines (2023), Goldman Sachs Possibilities Summit (2024), Excel with Dell (2024), Fisk Google Hackathon (2023), Adobe HBCU 20X20 Fellow (2024), The Pitch by TMCF (2024), Vanguard NorthStar Fellow (2024)