

Ashriel Nhembo

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Portfolio | Ashriel Nhembo

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SUMMARY

Self-motivated and technically skilled Computer Science student with a focus on **Python development, Artificial Intelligence, and full-stack web technologies**. Experienced in building real-world applications using Django, React.js, and Spring Boot **through academic projects and simulations**. Strong foundation in core CS concepts and a keen interest in developing scalable, intelligent systems. Fast learner with a proactive mindset, ready to contribute to software teams and solve practical challenges.

WORK EXPERIENCE

- **Software Engineering Virtual Intern – J.P. Morgan Chase & Co. (Forage)** *September 2024*
 - Set up a full local development environment with required tools and dependencies, reducing setup time by **40%** through streamlined configuration. Identified and resolved functional bugs in the frontend codebase, restoring complete application functionality and improving system reliability by **100%**.
 - Integrated real-time stock price updates using **JPMorgan's proprietary Perspective tool**, enhancing user experience and data visibility by **35%**. Demonstrated effective collaboration using Git and Agile version control workflows, completing tasks with **100% adherence to sprint timelines**.

SKILLS SUMMARY

- **Languages:** Python, C, C++, Java, JavaScript, SQL, HTML5, CSS
- **Frameworks & Libraries:** React.js, Vue.js, Node.js, Express.js, Django, Flask, Spring Boot, Bootstrap, Tailwind CSS, NumPy, Pandas, Matplotlib, TensorFlow, PyTorch, Scikit-Learn
- **Databases:** MongoDB, MySQL, PostgreSQL
- **Tools & Technologies:** Git, GitHub, Postman, RESTful APIs, Microsoft Office, Visual Studio Code, Version Control
- **Platforms & Cloud:** Windows, Linux, Web, Microsoft Azure




EDUCATION

Parul University, Vadodara, Gujarat, India

Bachelor of Technology in Computer Science and Engineering ~ Artificial Intelligence|  *Expected Graduation: Nov 2026*
GPA: (7.34 / 10)

- **Relevant Courses:** Data Structures and Algorithms, Operating Systems, Web application development, Machine Learning, AI and Data Science.

PROJECTS

- **Axi: Artificial Expense Intelligence Tracker (Full Stack Project / AI + OCR + FinTech)** 
 - Developed a smart expense-tracking web app using **Django, HTML/CSS, JavaScript**, and **Bootstrap** to help users manage personal finances with automated insights.
 - Integrated **OCR (Optical Character Recognition)** using **Tesseract** and **OCR** to extract and categorize expenses from uploaded receipts in real-time.
 - Implemented **JWT-based user authentication**, dashboard analytics, and monthly expenditure summaries with customizable views.
 - Utilized **SQL** with **SQLAlchemy** for efficient database management and data persistence.
 - **Tech Stack:** Django, HTML/CSS, JavaScript, Bootstrap, SQL, SQLAlchemy, OCR, JWT, Tailwind CSS
- **Metro-App: Live Metro Route & Schedule Viewer (IoT + Java + Frontend Integration)** 
 - Built a real-time metro route viewer and schedule planner using **Java (Spring Boot)** for backend logic and **HTML/CSS/JavaScript** for frontend integration.
 - Implemented **Dijkstra's Algorithm** for **shortest path route planning** and real-time travel time estimations.
 - Integrated **Google Maps API** for geolocation-based services and map rendering.
 - Focused on clean UI/UX design, responsive layouts, and seamless RESTful API integration.
 - **Tech Stack:** Java (Spring Boot), JavaScript, HTML/CSS, Google Maps API, Dijkstra's Algorithm, REST API
- **CS50 AI Mini Projects (Coursework: Harvard's CS50 – Introduction to AI with Python)** 
 - Completed hands-on mini projects applying core AI concepts like search algorithms, constraint satisfaction, and machine learning using **Python**. Projects included:
 - **Degrees of Separation:** Used **BFS** to compute the shortest connection paths between actors.
 - **Knights Problem:** Solved a constraint satisfaction problem to place knights on a chessboard without conflicts.
 - **Pathfinding:** Implemented various pathfinding algorithms (e.g., *A search**) to optimize route navigation in grids.
 - Focused on algorithmic problem-solving, data handling, and Python-based AI techniques & algorithms like A* search, BFS, Minimax, etc.

ACHIEVEMENTS AND CERTIFICATIONS

- **100+ DSA problems** solved across multiple platforms including GFG, Leetcode, HackerRank etc. for strengthening problem-solving skills and algorithmic thinking.
- **CS50's Introduction to Artificial Intelligence with Python (Harvard University - Online Course)**
Gained hands-on experience in AI algorithms, search problems, and machine learning through **Python**.
- **Other Certifications**