Issouf Diarrassouba

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EDUCATION

The George Washington University | Washington D.C.
B.S. in Computer Science   Graduated May 2025
Awards: Dream It Real Scholarship Fund, University & Alumni Award

TECHNICAL SKILLS

Programming Languages: Python, **Java**, Swift, Kotlin, C **SQL**, R
Cloud & Networking: AWS (VPC, EC2, IAM, Lambda), **Networking** (DNS, Subnetting, HTTP, TCP/IP)
Framework & Tools: Vapor, **Flask**, **React**, Docker, Firebase, **Git**, Github, Postman, Linux
Tools & Certifications: Google Data Analytics (Coursera), Google IT Support (Coursera)
Languages: Fluent in English and Spanish (NYC Seal of Biliteracy)

WORK EXPERIENCE

Math Matters | *Lead Tutor* | Washington D.C.   January 2022 - May 2025
- **Tracked** and **analyzed** progress data for **20+ students** using **spreadsheets**, optimizing personalized math strategies that improved comprehension by **30%** and strengthened **analytical problem-solving**.

The Opportunity Network | *Data Analyst Intern* | New York, NY   June 2021 - August 2023
- **Automated** data reporting processes using **Excel pivot tables** and **formulas**, increasing operational accuracy by **95%** and reducing manual work.
- **Analyzed** program engagement data to deliver actionable insights that improved student service strategies and outcomes for **50+ participants**.

TECHNICAL PROJECTS

HouseMatch | *Backend Developer* | *Capstone* | Swift, Vapor, AWS, Python   November 2024 - April 2025
- **Developed** a secure, scalable **iOS backend** enabling renters to access affordable housing options; collaborated with team to deliver a **cloud-based solution** prioritizing **user accessibility** and **performance**
- **Engineered** efficient network request handling for real-time property listings using **RESTful APIs**
- **Architected** system for **high concurrency** and **reliability** utilizing AWS Lambda
- **Collaborated** in an **Agile-like development cycle**, iterating backend features based on **team feedback** and **testing**

Personalized Housing Price Predictor | ML & Backend | Python, Flask, Scikit-learn   January 2025 - May 2025
- Developed a scalable Flask backend with RESTful APIs to serve housing price predictions and p**ersonalized recommendations**.
- **Implemented** core **machine learning logic** (custom linear regression with L2 regularization) to drive application functionality.
- Ensured **secure input validation** and integrated **data pipelines** for real-time model inference and response.

Interactive Museum Exhibit | *FrontEnd* | JavaScript, HTML, WebGL, Java   January 2025 - May 2025
- Implemented event-driven UI components with synchronized **multimedia playback** (audio, video, animations) for enhanced interactivity and accessibility.
- Engineered dynamic interface updates and **state management** for popup modals and interactive quizzes with real-time animated feedback, achieving a **90% user completion rate**.
- Developed and **optimized** a WebGL 3D model using Three.js, including shader adjustments, scene graph management, and camera control for smooth rendering.

University Management | *Full Stack* | Python, Flask, HTML, CSS, SQL   January 2023 - May 2023
- Developed user registration and login workflows with **secure authentication**, **session management**, and **input validation.**
- Implemented **role-based access control (RBAC)** to assign permissions and administrative capabilities dynamically based on user roles and clearance levels.
- Supported administrative functions for managing user accounts, approval processes, and data access restrictions within a **normalized SQL database schema**.

AFFILIATIONS & LEADERSHIP

The Opportunity Network (OppNet Fellow, June 2019 – Present) | National Society of Black Engineers (NSBE) — Senator (Apr 2024 – May 2025) | CodePath | ColorStack | GW Men's Club Soccer | Tutor (Math & CS)