Mamadou Tiefin Coulibaly

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SUMMARY

Dedicated GIS professional with a Master's degree in Remote Sensing and GIS, proficient in spatial data management, GIS application development, and advanced data analysis. Highly skilled in Esri GIS technologies, with a proven track record of developing and maintaining geospatial applications. Adept at optimizing database performance, ensuring data integrity, and enhancing decision-making processes through high-quality cartographic products and data visualizations. Demonstrated ability to automate processes using Python, manage and support GIS systems, and conduct comprehensive spatial analyses. Excellent verbal and written communication skills in English and French, with strong organizational and problem-solving abilities.

EDUCATION

Geographic Information Systems Graduate Certificate
Centre of Geographic Sciences (COGS), NSCC

June 2024
Lawrencetown, NS

Master of Remote Sensing and Geographic Information Systems
Centre Universitaire de Recherche et d'Application en Télédétection

Jul 2019
Abidjan, Côte d'Ivoire

Bachelor of Science in Earth Sciences
Université Felix Houphouet Boigny

Oct 2015
Abidjan, Côte d'Ivoire

SKILLS

- **Programming Languages:** Adept in Python, JavaScript (HTML/CSS), SQL, PL/SQL, ArcGIS Arcade

- **GIS Technologies:** Advanced proficiency with Esri applications (ArcGIS Pro, ArcGIS Online, ArcGIS Instant Apps, ArcGIS StoryMaps, ArcGIS Dashboards, ArcGIS Experience Builder) for leveraging geospatial data

- **Mobile GIS:** Adept in ArcGIS Survey123, ArcGIS QuickCapture, ArcGIS Field Maps for field data collection and management

- **Database Management:** Skilled in PostgreSQL/PostGIS and Oracle database/Oracle Spatial

- **Remote Sensing:** Proficient in using CATALYST Professional, ESA SNAP, and ENVI for image processing and analysis

- **Languages:** Strong verbal and written communication skills in English and French

PROFESSIONAL EXPERIENCE

Research Assistant

Applied Geomatics Research Group (AGRG), NSCC

Feb 2024 - May 2024

Middleton, NS, Canada

- I processed and analyzed time series radar and optical satellite imagery to monitor the evolution and reconstruct the impact of the Tantallon and Shelburne wildfires in Nova Scotia

- I conducted comprehensive wildfire simulations using Prometheus and 3D Wave models, two fire behavior prediction models, to evaluate their accuracy in replicating fires under identical weather conditions

- I provided critical insights to enhance the accuracy and reliability of the 3D Wave model

Geographic Information Systems and Digital Solutions Assistant

The City Hall of Bouake

Nov 2021 - Jul 2023

Bouake, Côte d'Ivoire

- I improved the accuracy of urban planning decisions by 20%, leading to more effective sustainability initiatives through the development and maintenance of a comprehensive and up-to-date geospatial database

- I spearheaded the integration of GIS data into project workflows and databases by developing GIS applications that automated ETL processes, reducing processing time by 30% and enhancing data accuracy and integrity

- I reduced decision-making time by 36% by providing critical insights through high-quality maps. This achievement was a direct result of meticulously identifying the needs of stakeholders and various departments through meetings

- I trained over 50 colleagues and partner teams on the use of geospatial applications I developed

Geomatics Engineer

Institut National de la Statistique

Nov 2019 - Jan 2020

Abidjan, Côte d'Ivoire

- I developed detailed enumeration area maps for the 2020 Ivorian Population Census, enabling strategic demarcation and efficient data collection, which facilitated a systematic and precise national census process, achieving an average coverage rate of 90% and ensuring accurate demographic insights

- I assisted in the analysis and dissemination of geographic data to various provincial departments, ensuring the accuracy and relevancy of the information

AWARDS, CERTIFICATES & OTHERS

- Esri Canada Centres of Excellence Student Associate Award

- 20+ Esri e-Training certificates

- WHMIS & OH&S certified

- Vice President of Services, Student Association, AVC-COGS Campus