Nathan Embaye
Software Engineer

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Education

September 2015 - December 2020

Carleton University - Ottawa, Canada

Bachelor of Computer Science, emphasis in Software Engineering
Bachelor of Global and International Studies, emphasis in Politics

Experience

February 2024 - Present

Yelp - Ads UX Platform Team - Full Stack Engineer

Implemented "Request a Quote" and "View Website" buttons for a search page A/B experiment that increased annual ad product revenue by $5+ million.

Developed logging functionality for search results card components to track and store user clicks, impressions and views.

Created a photo gallery component with React and TypeScript which fetched its data from sibling microservices via GraphQL queries/mutations.

Wrote unit, integration and functional tests for new features/releases with PyTest and React Testing Library.

May 2022 - January 2024

Bank of Canada - Data Operations Team - Software Engineer

Created scalable ETL/ELT pipelines for batch-processing using Azure Data Factory as an orchestrator.
Performed data validation/transformation using Spark, Databricks and Python for distributed processing.
Monitored data pipelines and implemented their email/SMS alerts using Azure Log Analytics.
Migrated historical data from an on-premise Oracle SQL database to Azure Blob Storage.

February 2021 - April 2022

Bank of Canada - Analytic Environments Team - Software Engineer

Created a serverless Node.js app in Azure Functions using JavaScript and API polling.
Built CI/CD pipelines in Azure DevOps increasing production deployment speed by 80%.
Performed data modeling for data lake and data warehouse while documenting schema on Confluence.
Wrote and optimized SQL queries for economists/researchers publishing business intelligence reports.

September 2020 - December 2020

Carleton University - **Object Oriented Software Engineering** - Teaching Assistant

Assisted students in developing iOS and Android mobile apps by introducing user stories and Git.
Guided implementation of different design patterns and architectural styles.

July 2020 - October 2020

Transport Canada - Dangerous Goods Team - UI/UX Design Intern

Used Figma to develop wireframes, mock-ups and prototypes satisfying user requirements.
Conducted user research through usability testing, A/B testing and user interviews.

September 2019 - December 2019

Canadian Air Transportation Security Authority - Reporting Team - Data Analyst Intern

Automated reports of airport passenger screening speed Canada-wide. Cleaned and normalized data for national incident reports. Black-box testing for Cognos Developers.

Projects

Streaming Pipeline - github.com/nathanembaye/coinbase-pipeline

Java app ingesting real-time data via Coinbase web-sockets. Message handling with Kafka. Google Protobuf for serialization. Spark Structured Streaming for processing. Stored in Cassandra NoSQL database.

Vibecheck - github.com/nathanembaye/vibecheck

React-Native mobile app written in TypeScript. Interprets user queries and returns songs matching the depicted emotion/mood. Spotify API for song retrieval and Figma for mock-ups.

Technical

Languages: Python, TypeScript, JavaScript, SQL, Java

Tools: Linux, Git, AWS/Azure, React, Kafka, Protocol Buffers, Parquet, Node.js

Datastores: Azure Blob Storage, S3, MySQL, MongoDB, Cassandra

Interests: API development, streaming data pipelines, distributed systems