

# Nathan Embaye

Software Engineer

Ottawa, Canada

nathanembaye.com

github.com/nathanembaye

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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** - Backend 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** - Backend 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](https://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](https://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