

Matthias Takele

164 Stanton St #5A New York, NY 10002 | (301)-674-0188 | matthiastakele@gmail.com | [LinkedIn](#)
<https://matthiastakele.github.io> | Open to Software Engineering Positions

Education

Massachusetts Institute of Technology (MIT) | September 2019 - May 2023 | *Cambridge, MA*

- Graduate with B.S. in Computer Science and Engineering
- **Key Courses:** Fundamentals of Programming (6.009), Introduction to Algorithms (6.006), Introduction to Machine Learning (6.036), Elements of Software Construction (6.031), Design and Analysis of Algorithms (6.046), Mathematics for Computer Science (6.042), Embedded Systems (6.08), Microcomputer Project Laboratory (6.115)

Work Experience

Software Engineer I @ Datadog (Revenue Query team) | August 2023 - Present | *New York, NY*

- Designed, developed, and optimized ETL pipelines to ingest, transform, and validate large datasets from AWS S3 into PostgreSQL, reducing query latency by 20% and enhancing data freshness
- Engineered a data migration layer to transition usage data into a contract-aware schema while maintaining 100% backward compatibility with existing customer-facing APIs
- Automated dataset deprecation and cleanup using cron jobs and real-time monitoring, reducing stale data by 40%, minimizing manual intervention, and improving overall data integrity
- Implemented a billing dimension mapping API to standardize cost and usage attribution values across multiple endpoints

Software Engineering Intern @ Datadog (Revenue Query team) | June 2022 - August 2022 | *New York, NY*

- Developed a PostgreSQL migration tracking tool to detect and resolve schema discrepancies in containerized environments, reducing migration errors by 90%
- Aggregated and validated six months of historical data (~200M records) to improve frontend retrieval times for usage and billing graphs by 30%.
- Built and maintained billing and usage APIs, serving hundreds of thousands of requests per day with 99% uptime for Datadog customers

New Technologists Program Intern @ Microsoft | June 2020 - August 2020 | *Virtual*

- Designed and developed a social media web application using TypeScript, React, and Git
- Conducted user research through surveys and interviews to refine product requirements
- Collaborated in a cross-functional team to prototype and pitch a web application to Microsoft executives

Project Experience

RecipeVerse (Personal Project) | February 2025

Demo Link: <https://recipe-verse.vercel.app> | Repo: <https://github.com/matthiastakele/recipeverse>

- Developed a full-stack recipe application integrating TF-IDF search for efficient, relevance-ranked recipe retrieval
- Designed a modern, responsive UI with React and TypeScript, optimizing user experience and accessibility
- Integrated Firebase authentication for secure user account management and personalized recipe storage
- Engineered a structured data pipeline to parse and index a large CSV dataset, ensuring rapid search performance

Spotify Top Artists Trivia App (Personal Project) | December 2024 - January 2025

Demo Link: <https://spotify-top-artists-trivia.vercel.app> | Repo: <https://github.com/matthiastakele/spotify-top-artists-trivia>

- Built an interactive trivia game leveraging the Spotify Web API to dynamically generate questions based on user data
- Developed the backend using Python (Flask) and Jinja templating, integrating seamlessly with the frontend
- Deployed the application on Vercel to ensure scalability, high availability, and low-latency user interactions

Calial (Software Studio Final Project) | December 2022 - January 2023

Demo Walkthrough: <https://youtu.be/I24bIIX46zg> | Repo: <https://github.com/matthiastakele/Calial>

- Designed a social media application prototype, creating wireframes and UI mockups in Figma
- Developed the frontend using Vue.js, ensuring a responsive and intuitive user interface
- Integrated MongoDB for efficient data storage and retrieval, optimizing database queries
- Implemented third-party authentication using Google and Facebook SDKs to streamline user onboarding

Skills

- **Languages:** Python, Go, TypeScript, Java, C++ | **Frontend:** React, Vue.js, HTML, CSS | **Backend:** Node.js, Django, Flask
Infra: Docker, Kubernetes, AWS, Firebase | **Databases:** PostgreSQL, MongoDB | **Tools:** Terraform, CI/CD, Git, Jira