

Mitravasu Prakash

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EDUCATION

University of Toronto

September 2019 - June 2024

Honours Bachelor of Science, Computer Science (GPA: 3.19/4.0) (Dean's list: 2020)

Relevant Courses: Software Engineering, Databases, Data Structures and Algorithms, Machine Learning, Web Applications, Assembly

WORK EXPERIENCE

University of Toronto Hatchery | Software Engineer

September 2021 - Present

Tech Stack: *PHP, SQL, JavaScript, jQuery, AJAX, Wordpress, Tailwind, Vue*

- Built an email scheduling portal to allow administrators to schedule and maintain emails to be sent to the specified startups.
- Refactored SQL queries to reduce page load times for the administrator dashboard by 41%
- Restructured application forms to reflect updated requirements and refactored code to eliminate redundancies

Basis Technologies (formerly Centro) | Software Engineer Intern - DSP Platform

June 2022 - August 2022

Tech Stack: *Java, Redis, JUnit, SQL, MongoDB, Kafka, Docker, JIRA, Postman*

- Enhanced testing environment to accurately simulate real-time bidding in a mock environment
- Designed software architecture documents for a business intelligence project aiming to provide insight on why client ad campaigns went offline
- Built API endpoints for the above business intelligence project to allow programmatic access to insights

University Health Network | Software Engineer

January 2021 - August 2021

Tech Stack: *PHP, SQL, JavaScript, Wordpress, MS Access, Visual Basic, Python*

- Created a payroll portal to automate the timesheet submission process which is used by 50 employees bi-weekly to submit their work hours
- Implemented automatic reminder and summary emails to increase transparency between employees and their project managers
- Reduced database redundancies by 31% by conducting audits and normalizing research data in a MS Access database
- Created reports and forms on MS Access using research data on kidney patients and the barriers preventing them from receiving treatment

PROJECTS

Spotify Recommendations | bestestc09group.ml

January 2022 - April 2022

Tech Stack: *React, Bootstrap, ExpressJS, GraphQL, Axios, MongoDB, Spotify API*

- Implemented dashboard for users to **generate recommendations**, allowing them to fine tune audio features and add/remove liked tracks, and save the recommendations as a playlist to their Spotify account
- Created **data visualizations** using user's Spotify data to give insights into which genres and era of artists they listen to as well as a recommendation timeline
- Designed and implemented **GraphQL** schema's to keep track of user's recommendations history, as well as other user information
- Added **user authentication** to access user's Spotify data as well as keep track of their recommendations, liked/disliked tracks.

Analysis of Stock Market Fluctuations

November 2021 - December 2021

Tech Stack: *Python, Scikit-Learn, Matplotlib, Pandas, NumPy, Jupyter Notebooks*

- Identified key factors affecting fluctuations in the Stock Market by creating and analyzing **regression models** based on category specific EMV uncertainty indexes
- Classified the CBOE Volatility Index historical dataset into 5 different regimes and predicted the likelihood of the stock market to switch between regimes

Rideshare API

July 2021 - August 2021

Tech Stack: *Java, Docker, Neo4j, MongoDB, PostgreSQL*

- Developed a **Java API** containing three **microservices** which provide information regarding location of drivers/passengers, trips/routes, and users
- Created queries for three different types of databases: **PostgreSQL, MongoDB, Neo4j (Graph Database)**

SKILLS

- **Languages:** Java, Python, HTML, CSS, JavaScript, TypeScript, C, SQL, PHP, GraphQL, R
- **Framworks and Libraries:** Node.js, Express.js, React, Vue, jQuery, Bootstrap, JUnit, NumPy, Electron, Flask, Tailwind
- **Databases:** MongoDB, MySQL, PostgreSQL, Neo4j, MS Access
- **Tools and Technologies:** Git, JIRA, Docker, WordPress, NetlifyCMS, Postman, Linux, Figma, Adobe XD