Alvin Masaba

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EDUCATION

Software Engineering & Technology | *Centennial College*   **Class of 2026**
- Current GPA: 4.5 – Relevant Coursework: Software Engineering, Programming, Web Interface Design, Database Concepts, Unix/Linux Operating Systems

Molecular Biology, Immunology & Disease, HBSc. | *University of Toronto*   **Class of 2018**

PROJECTS

Full-Stack PagerDuty Clone | Ruby on Rails, React Vite, Node.js, Tailwind CSS, PostgreSQL
- Responsive PagerDuty dashboard built using a Ruby on Rails API as the backend and React Vite as the Front-End, demonstrating understanding of both API integration and client-server interactions, such as matching front end browser states to backend controller actions
- Utilised PostgreSQL database for storing user and incident data, with controller methods allowing for CRUD operations, demonstrating knowledge of SQL and MVC architecture
- UI employs Tailwind CSS for styling, React Table with pagination, a pop-up modal component for add/edit forms and show pages, rich-text editor for user-user messaging, demonstrating knowledge of React built-in and custom hooks, routing and form controls

Full-Stack Facebook Clone | Ruby on Rails, Javascript, Bootstrap CSS, PostgreSQL
- Built using Test Driven Development via Rspec to simulate an incremental, agile development process
- Managed custom and nested routes, displaying grasp of routing principles, ensuring a RESTful and intuitive user experience.
- Diverse CRUD functionality including sending, receiving and accepting friend requests, posting to user profiles, commenting on posts, liking posts and comments, and a feed that updates in real time
- Implements third party APIs such as Gravatar for user profile pics

NBA Player Success Prediction Model | Python, Pandas, Numpy, SciKit Learn
- Developed a robust machine learning model to predict NBA success based on collegiate performance
- Created and managed a comprehensive database of NBA and NCAA statistics spanning 1995 to present
- Designed and implemented a sophisticated web scraper for data acquisition, performing thorough data cleaning and preprocessing
- Leveraged Python, Pandas, Numpy, and Scikit-Learn for model development demonstrating proficiency in data analysis, feature engineering, and model selection.
- Offers insights to sports analytics field on how collegiate performance relates to NBA success

Full-Stack Fantasy Basketball Website | Ruby on Rails, Javascript, Bootstrap CSS, PostgreSQL
- Utilised MVC architecture in Ruby on Rails to integrate multiple models with a PostgreSQL database
- Designed and scheduled scraper to update database daily from online Google Sheet, with advanced features such as implementing trades, contract updates, and player signings into the database
- Responsive, user-friendly UI utilising Bootstrap CSS, Hotwire Turbo and Javascript, with advanced techniques such as pagination and colour themes

TECHNICAL SKILLS

Languages: Javascript, Ruby, Python, Java, HTML/CSS
Frameworks & Libraries: Rails, React, Tailwind, Bootstrap, Hotwired Turbo, Node.js, SciKit Learn
Tools & Methodologies: Git/Github, Heroku, Vercel, Postman, Agile, SQL, Test-Driven Development