Nicolas Mateus
Software Engineer

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Education

University of Western Ontario
Sept 2018 - May 2023
B.S. Software Engineering
Relevant Courses: Web Technologies, Cloud Computing, Database Management Systems, Software Engineering Design and Requirements, Software Testing, Machine Learning, Network Protocols

Skills

Javascript, AJAX, RESTful APIs, HTTP, Secure Socket Layer, Python, Flask, Pylint, Agile, Scrum, Kabaan, GitHub, Java, PostgreSQL, MySQL, AWS, GCloud, IBM Cloud, DevOps, Docker, Kubernetes, Terraform, UNIX, UML, Jira, Web Servers

Experience

Database Management System for Western Shop Training

- Developed the beta for a full-stack application in a team of 6, reducing the time spent on managing student training by 60%.
- Developed RESTful backend endpoints interfacing with a database, empowering users to retrieve, create, and modify data with a robust and scalable architecture.
- Managed the project using Scrum to deliver the project across two sprints, communicating with the client to create the backlogs and deliver all features within the expected timeline.
- Utilized: TypeScript, React, Axios, GitHub, Express.js, Node.js, PostgreSQL, Yarn, Vite

Online Ordering Website

- Developed a multi-page website using TypeScript and React that allows for orders to be placed through email using Nodemailer API.
- Implemented a middleware for token-based authentication, ensuring server security and controlling protected routes.
- Designed API logic that encompassed login, registration, and email order processing, ensuring a structured and efficient backend architecture.
- Stack: Typescript, Github, GraphQL, Node.js, Tailwind, Nodemailer API, React Router, JSON Web Token

NBA MVP Predictor

- Conceptualized and engineered a machine learning model to accurately forecast the NBA's Most Valuable Player, employing diverse regression models for comprehensive predictions with an average R2 score of 0.60.
- Contributed to collecting, processing, and curating the dataset utilizing various data visualization techniques ensuring optimal data quality for model training and evaluation.
- Guided team members in implementing the appropriate machine learning techniques, effectively communicating the steps required while highlighting areas where issues could arise.
- Utilized: Python, Google Collab, PyPlot, SciPy, Seaborn, Pandas, Scikit-Learn, NumPy

Emotion Detector

- Developed an AI-driven application using an emotion analysis API, enabling users to submit phrases and receive HTTP responses detailing detected emotion scores.
- Designed unit tests to ensure that function calls were producing the desired responses, maintaining code integrity.
- Implemented robust error handling in the Flask application, systematically checking the API response's status code to address potential errors and enhance application reliability.
- Utilized: Python, Flask, PyLint, Unnittest, IBM Watson, JSON, Requests library