

Bobby Zia

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Education

Queen's University

September 2019 - April 2023

Bachelor of Computing, Computer Science

Kingston, Canada

- **Relevant Coursework:** Web Development (JavaScript, PHP), System Level Programming (C, Bash, Linux)
- **Activities:** Design Team Member @ Betalab and QMIND (Queen's AI Hub)

Skills

Languages: Python, Java, JavaScript, C/ C++, Swift, HTML, CSS, Bash

Tools & Databases: Linux, Unix, Git, AWS, Node.js, PostgreSQL, SQL, MongoDB, GraphQL, Cloud Firestore

Frameworks/Libraries: React.js, Express.js, Redux, SwiftUI, Pandas, NumPy, Scikit-learn

Experience

Invenew

May 2020 - Present

Software Engineer

Toronto, Canada

- Performed front-end and back-end engineering tasks to build the company's core public web-application
- Designed the UI/UX by prototyping different user interfaces in Figma and UI elements in Adobe Illustrator
- Developed the UI components in CSS and React while working with hooks and Redux for state management
- Built core back-end functionalities like REST APIs with Node.js and Express.js, designed a PostgreSQL database to store user profile data, and managed AWS EC2 server instances to ensure site reliability

Betalab

Feb 2020 - Present

Data Scientist - Design Team

Kingston, Canada

- Researched and iteratively developed a machine learning model using Extreme Gradient Boosting and Long Short-Term Memory networks for time-series forecasting on equity market data
- Used a Python ML toolkit consisting of NumPy, Pandas, and Scikit-learn to perform data preprocessing, feature engineering, and model hyperparameter tuning for a final accuracy of 93.18% in a regression-based task

Technical Projects

StoreFront

- An E-Commerce web-app with an admin portal to update inventory and user/order info directly to the database
- Features a payment system using PayPal Payments API and Stripe.js API to tokenize customer information
- Used Postman to test API endpoints mainly for protected routes that require user authentication via JWT
- Developed the front end in React and used the Bootstrap CSS framework to stylize the UI components
- *Technologies Used: React.js, Node.js, Express.js, Redux, MongoDB, JSON Web Tokens (JWT)*

Remember

- An IoT watchOS application for Apple Watch made to help those with ADHD overcome poor organizational habits
- Used SwiftUI to build the UI and a custom notification interface, while handling events with extension delegates
- Modeled the user data in a NoSQL Cloud Firestore database so users can access/update their data in real time
- *Technologies Used: Swift, SwiftUI, FirestoreDB, Xcode*

Computational Complexity Visualizer

- A program that lets a user generate and graph empirical data on the performance of popular sorting algorithms
- Interacts with the local filesystem to select a generated file and uses the Tkinter library to graph performance

- *Technologies Used: Python (Tkinter)*