Jodie Zhu

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SKILLS

Languages: Python, JavaScript, Java, SQL, C, C++, TypeScript, HTML, CSS.

Tools/Frameworks: React, Git, AWS, React Native, GraphQL, Cypress, Docker, PostgreSQL, Realm, Bootstrap.

WORK EXPERIENCE

Software Engineering Intern– MedMe Health   Toronto, Ontario | May 2022– Aug 2022

- Memoized and centralized functional components in **React** to reduce **Mapbox API** requests, saving company ~**$12,000 annually**;
- Configured standardized **WebView** wrapper using **React Context** and **postMessage API**, allowing over 200 customers to integrate core flows into their mobile and web applications;
- Conceptualized and built virtual appointment feature in **JavaScript** implemented into over 400 patient registration forms and wrote respective **Cypress tests** to simplify debugging and ensure edge cases are functioning, deployed by **AWS Amplify**;
- Decoupled dynamic email/SMS templates in **Java** and **PostgreSQL** to increase reusability and range of verbiage customization.

Data Scientist Intern– Adnog Technology   Toronto, Ontario | May 2022– Aug 2022

- Integrated **Google Analytics** into UI to retrieve customer metrics and developed an algorithm in **Python** that divides over **37,000 Markham residents** into common demographics using **scikit-learn** and **elbow method**;
- Implemented a threading tool that extracts visitor patterns and removes incomplete, corrupted, and duplicate entries from a data set to increase quality/relevant data and speed up data extraction by 37%;
- Illustrated the spatial distribution of residents in Markham, Ontario using **GeoPandas** and **Mapbox API** to locate areas of higher population density.

PROJECTS

StudyBuddy (iOS Productivity App)– JavaScript, TypeScript, MongoDB Realm (https://github.com/jodiezhuu/StudyBuddy)

- Designed and developed a productivity app in **React Native** that tracks studying and allows clients to collect monster cartoons at the end of each study period;
- Configured a document database with **Realm** and **TypeScript** to store and query memory-mapped objects involving monster count and total time studied.

S&P500AlgoBot (Stock Portfolio Simulator)– Python (https://github.com/jodiezhuu/SP500AlgoBot)

- Created a portfolio algorithm that dynamically intakes any list of US stock tickers and analyzes live financial data to project the safest portfolio using **Python NumPy** and **Pandas**;
- Managed risk within the portfolio using the correlation coefficient and paired a high-risk stock with its least-correlated stock to determine optimal portfolio weightings.

BudgetBud (Financial Planner)– JavaScript, React, CSS (https://github.com/jodiezhuu/BudgetBud)

- Developed a React web-application that produces a client's total monthly expenditures and recommended monthly spending based on their inputted income and living expenses using **JavaScript**;
- Created and designed a single-page app using **React, Bootstrap,** and **CSS**.

EDUCATION   2021– Expected 2026

Candidate for Bachelors of Computer Science– University of Waterloo

- **Relevant coursework:** Object-Oriented Software Development (Bash, C++), Elementary Algorithm Design and Data Abstraction (C), Financial Markets and Data Analytics (Python).