

# Jay Bhagat

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## SKILLS

**Languages:** Javascript, Python, C++, C, C#, Java, HTML/CSS, Bash

**Technologies/Frameworks:** Node.js, Firebase, MongoDB, SQL, React, React Native, REST API, jQuery

**Tools:** Git, Heroku, Google Cloud Platforms, JIRA, Maven/Gradle, VIM, Linux

## EXPERIENCE

### Open-Source Software Developer | BlackBerry Ltd.

Waterloo, ON (Jan. 2021 - Apr. 2021)

- Developed multiple scripts using **Python** to automate team tasks with libraries to retrieve, process, filter, and represent data (**HTTP Requests**, **Pandas**)
- Created **Gradle** and **Maven** plugins using Java, to build BlackBerry's Java products that approximately **doubled** efficiency by automatically transferring build information to analysts.
- Modified the existing **CI/CD strategy** for different BlackBerry products, to integrate automated OSS analysis information transfer to analysts.
- Implemented **asynchronous** functions and **multi-threading** to increase efficiency when accessing data from an **Apache Tomcat** Server with an **SQL** database using **REST APIs**.

### Software Developer | Cynorix Inc.

Waterloo, ON (May 2020 - Aug. 2020)

- Independently created a secure user password storage server and implemented API routes using **Node.js** on **MongoDB**, and making changes to use it with a Windows client, coded in **C#**.
- Built a Google Drive extension to allow users to share encrypted files with one another using **Node.js** and **Firebase** for the back-end, and **Google Drive APIs** for the front-end.
- Utilised the **Emscripten** library to compile C++ code to **WebAssembly** to run on Javascript **394%** faster.
- Created a **secure messaging application** between two users on Javascript to use a state-of-the-art key generation algorithm.

### Software Engineering Intern | The EPOCH App

Waterloo, ON (Feb. 2019 - Apr. 2019)

- Implemented parts of the [www.epochapp.com](http://www.epochapp.com) visited by 1000s of users daily using **React** to improve UX/UI.
- Effectively managed code repositories with **Git** to work with an **agile** software development style.

## PROJECTS

**Catch (Around-the-Globe):** Created the entire back-end (server and REST API) on **Firebase** for an AR mobile game for users to play catch with one another. (**EchoAR Challenge Winner** HackThe6ix 2020)

**Dealial!:** Developed a **cross-platform React Native** app with a **Firebase backend** to find the best deals for users.

**blog.io:** Built a **full-stack** blogging web app with **React**, **Redux**, **MongoDB**, **Express**, and **Node.js** allowing users to post, like, and comment on articles.

**Rentr API:** Implemented a **REST API** and server to **scrape the web** for rental prices in neighbourhoods using an **SQL database** (Postgres), and deployed on **Heroku**. Thoroughly debugged the API using **Postman**.

**Sorcery:** Built a **C++** version of the card games *Magic: The Gathering* or *Hearthstone*, applying **OOP principles**.

## EDUCATION & AWARDS

**University of Waterloo** | Bachelor's in Computer Science, Honours (**AVG 91.4%**)

(2019 - 2024)

- NSERC Undergraduate Student Research Award, President's Scholarship