

# Bill DuGe

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## EDUCATION

**University of Waterloo** Bachelor of Computer Science, 3.94 Faculty GPA September 2018 - Present

**Most Relevant Courses:** Algorithms • Object Oriented Software Development • User Interfaces • Machine Learning/Artificial Intelligence • Database Management • Operating Systems • Computer Networks

## SKILLS

**Programming Languages** Python • JavaScript • TypeScript • C++ • C • Java • Go • CSS • HTML • SQL  
**Technologies** Node.js • React • Redux • Django • Express • MongoDB • AWS • Bootstrap • jQuery  
Kubernetes • Docker • UNIX • REST • GraphQL

## EXPERIENCE

**Wish** Software Engineer Intern (Product Web) | San Francisco, California January 2021 – April 2021

- Built buy-again feed to recommend products based on reorder probability data leading to an increase in company GMV, and implemented lazy loading on the order history page to improve buy-again loading times by 50%
- Developed a React scratch card component and backend APIs to integrate with payment systems to distribute discount and cash incentives to improve customer retention through gamification
- Worked efficiently in scrum environment with other engineers, product managers, and designers to deliver product features for desktop and mobile clients using Python and TypeScript (React and Redux)

**Wish** Software Engineer Intern (Logistics) | San Francisco, California May 2020 – August 2020

- Created Python services to correct shipment data inconsistencies, identify store pickup performance, and optimize item packing for shipping, requiring complex and efficient SQL and MongoDB queries
- Developed APIs to provide merchants with product recommendations for different shipment fulfillment options to improve delivery speed and cost
- Improved the merchant dashboard by building new shipping fulfillment pages with React

**Youtreka Canada** Software Engineer | Remote November 2019 – Dec 2020

- Designed and built a full stack application with Django and MySQL from the ground up, allowing employees to evaluate student applications on an end-to-end platform, increasing application processing efficiency by 40%
- Oversaw site deployment, hosting, and maintenance processes to ensure a smooth roll-out to Youtreka employees
- Worked with executives as a technical consultant to identify key areas to improve through software solutions

**Connected** QA Automation Developer Intern | Toronto, Ontario May 2019 – August 2019

- Built a cross platform desktop application using Electron for testing Amazon Alexa voice applications, providing a framework to easily test different conversation flows and reduced time spent on writing tests by 30%
- Spearheaded development of a Python command line tool to automate submitting test suite results, reducing time spent on mobile QA testing by 40%

## PROJECTS

**Juke Jam** | Express, SocketIO, React, Redux, MongoDB juke-jam.com | github.com/bduge/juke-jam

- Web application to streamline how music is played with friends. Users can join private rooms and add songs to a shared queue to play on the host's device. Users can vote to influence which songs are played.
- Built an Express server to: allow users to search songs and play songs using the Spotify API, authenticate accounts with the OAuth 2.0 protocol, and manage room data using a MongoDB database
- Used web sockets with SocketIO to develop fullstack logic to sync client connections and events in real time

**Photo Spot** | Go, MongoDB, Bootstrap, Gorilla Sessions github.com/bduge/photo-spot

- Web application to host photo competitions. Users can easily create photo competitions, submit photos, or vote for entries in other competitions
- Built full authentication system using Gorilla sessions to allow users to create and log into their account
- Developed logic to store image files in the server's file system for efficient retrieval