

# KARAN PATEL

4A Computer Science | HCI specialization

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## WORK EXPERIENCE

### Software Developer | GroupBy Inc. (Sept-Dec 2018)

- Increased the team's output up to **20%** by creating and debugging reusable web components using **TypeScript, React, and Redux**.
- Wrote automated **Unit** and **Integration** tests using **Jest, Mocha, and Chai**, as well as performed **Code Reviews** to understand code patterns.
- Proactively participated in **design refinement** meetings with the **Product Designer** to understand and guide design decisions.

### Software Developer | Cambridge Global Payments (Jan-Apr 2018)

- Developed features and fixed bugs for the main web app using **JavaScript, React, and Redux**, as a part of the **Agile Scrum** team.
- Fixed conflicting parallel routes on a software shipped to 13,000 users worldwide, by implementing an **efficient stack algorithm**.
- Created white-box **Unit Tests** and increased QA team's productivity to **150%** by doing **Regression and Performance testing**.

### Product Support Intern | Cambridge Global Payments (May-Aug 2017)

- Developed scripts using **VBA on Excel** for database management as well as came up with a random draw script on a short notice of 3 hours.
- Performed explicit **Exploratory QA Testing** on an array of devices and OSes.
- **Researched** and compared various APIs, Blockchain, and MFA technologies as well as various JavaScript third party applications.

## PROJECTS

### Fridge (WIP) | Java, Android Studio, Gradle, (more as required)

- Working in a group to develop an Android app to reduce food wastage.
- The app will smartly suggest recipes to cook every day, will notify the user about expiring food, and will maintain an intelligent shopping list and expiration history.

### Color Chat Room | JavaScript, NodeJS, WebSocket, HTML, CSS, JSON

- Developed a live client-server web chat application to learn how NodeJS and WebSockets work.
- The server assigns a unique color to every new user and sends them the chat history.

### JavaSketch | Java, Swing, AWT, Gradle

- A Java application similar to Microsoft paint to draw shapes with changeable features.
- Used graphic transformation and bottom-up Painter's algorithm to move and delete shapes, and save the canvas.

### Quadris | C++, Bash, Git

- Developed a game similar to Tetris, with proper use of design patterns and OOP.
- Created a project UML diagram, implemented graphics as well as features like hint, rotation, levels, sequencing, scoring, etc. using MVC architecture.

## EDUCATION

### University of Waterloo

- Candidate for Bachelor of Computer Science  
(Sept 2015 – April 2020)

## SKILLS

### Languages:

C, C++, Java, Python, HTML, CSS, Bash, JavaScript, TypeScript, Scheme, SQL

### Frameworks and Tools:

React, Redux, Redux Form, Bootstrap, Material UI, Git, JIRA, Android Studio, Gradle, Yarn, NodeJS, WebSocket

### Practices and concepts:

Object Oriented Programming, Design Patterns, UML diagrams, Software Architecture, Agile Scrum Practices, Pair Programming, UX/UI designing

## RELEVANT COURSES

- Human Computer Interaction
- User Interfaces
- Software Design and Architectures
- Computer Security and Privacy
- Computer Networks
- Algorithms
- Object Oriented Software Development
- Data Structures and Data Management
- Numerical Computation

## INTERESTS

- Cooking, photography, sketching, music
- Human Computer Interaction and Artificial Intelligence
- Learning about new coding languages, technologies, and concepts