KARAN PATEL

4A Computer Science | HCI specialization

kpatel5797.github.io

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ka7patel@uwaterloo.ca



647-939-7468



/kpatel5797



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WORK EXPERIENCE

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

- Increased the team's output by **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