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# KARAN PATEL

3A Computer Science | Software Developer

#### WORK EXPERIENCE

# Software Developer Intern | Cambridge Global Payments

- Was an integral part of the Agile Scrum team working on the frontend aspects of web application using *React* and *Redux*, as well as with *SQL databases*.
- Investigated and fixed multiple bugs, developed deliverable features, and created white-box *Unit Tests*.
- Helped the QA team with Regression and Performance testing, increasing the team's work productivity by about 150%.

## **Product Support Intern | Cambridge Global Payments**

- Developed various scripts using VBA on Excel for database management.
- Did an explicit *Exploratory QA Testing* for the company's new web application.
- Researched and compared various APIs, Blockchain, and MFA technologies as well as various JavaScript based frontend and backend third party applications.

## Junior Telecom Specialist | Saint Elizabeth Health Care

- Automated lengthy manual tasks by developing PowerShell scripts and increased work productivity by up to 300%.
- Analyzed and summarized report data on Telecom costs, volume, and usage as well as participated in a special project on asset management with the CIO.
- **Tested** new ticketing software and Avaya mobile applications.

#### RECENT PROJECTS

# Mr Smithers (WIP) | Dialogflow (Api.AI), NodeJS, Express, JavaScript

- Developing an AI Messenger chatbot, using Natural Language Processing from Dialogflow (Api.AI).
- Once finished, it will act as a personal assistant helping users with reminders, checklists, weather, maps, etc.

#### Online Market Structure (WIP) | Spring Framework, Maven, Thymeleaf, Java

- Working on this project as an attempt to learn how to develop full stack web apps.
- The final result will be a skeleton template for an online market store which can be used for various businesses. It will use Stripe payments, and will be deployed on AWS.

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

- Developed a live web chat application in an attempt to learn NodeJS and WebSocket.
- The serve assigns a unique color to every new user, and sends them the chat history.

## Ping Pong | JavaScript, HTML

- A remake of the classic single player Ping Pong video game, with Artificial Intelligence.
- The ball deflects from the paddle with different speeds and angles, depending on which part of the paddle it hits.

### **ProSeeMety** | Arduino, Swift

- Developed an attachment for glasses which acts as a guiding tool for deaf people.
- Algorithms like Sound Fingerprinting and Acoutic Localization were used, along with hardware like Arduino, LED lights, etc.

### SKILLS

#### Languages:

C, C++, Java, Python, JavaScript, HTML, CSS, Bash, Scheme, SQL, MIPS, JSON

#### Frameworks and Tools:

Bootstrap, ReactJS, Redux, Git, JIRA, Dialogflow (Api.AI)

### **Basic Knowledge:**

NodeJS, WebSocket, Spring Framework, Apache Maven, Android Studio, R

Strong understanding of OOP concepts, Design Patterns, UML diagrams, MVC architecture, Data Structures, Algorithms.

#### RELEVANT COURSES

- Operating Systems
- Algorithms
- Numerical Computation
- Object Oriented Software Development
- Data Structures and Data Management
- Foundations of Sequential Programs
- Logic and computation
- Combinatorics and Optimization
- Statistics, Probability

#### INTERESTS

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

#### EDUCATION

# **University of Waterloo**

- Candidate for Bachelor of Computer Science | 2015 - 2020