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# KARAN PATEL

3A Computer Science

#### WORK EXPERIENCE

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

- 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 (May-Aug 2017)

- 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 (May-Aug 2016)

- 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.

## **PROJECTS**

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

- 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.

#### 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.

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

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

#### SKILLS

#### Languages:

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

#### Frameworks and Tools:

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

# **Basic Knowledge:**

NodeJS, WebSocket, Spring Framework, Android Studio, R, SQL

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

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

### EDUCATION

## **University of Waterloo**

- Candidate for Bachelor of Computer Science | 2015 - 2020