# Raj Patel

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### **EDUCATION**

### University of Southern California, CA, USA

August 2019-May 2021

• Master of Science (M.S), Computer Science

GPA: 3.7/4

 Courses: Web Technologies, Analysis of Algorithms, Foundations of Artificial Intelligence, Foundations and Applications of Data Mining

#### Gujarat Technological University (Alpha College of Engineering), Gujarat, India

August 2015-May 2019

Bachelor of Engineering (B.E), Computer Engineering

GPA: 9.16/10

Courses: Data Structures, Theory of Computation, Compiler Design, System Programming, Software Engineering,
Database Management System, Object-Oriented Programming Principles

### **TECHNICAL SKILLS**

- Languages: Python, JavaScript (ECMAScript 6), TypeScript, Java, C, C++, HTML, CSS, Scala, PHP
- Databases: MySQL, SQLite, DynamoDB
- Libraries, Frameworks and Tools: NodeJS, ReactJS, Django, Flask, AWS Lambda, Serverless, AWS CDK, Jest, Cl/CD Code pipelines, Lerna, React-Native, Android, Bootstrap, Git, Sass, Servlet, JSP, Expo, jQuery, Keras, ExpressJS

#### WORK EXPERIENCE

# Software Development Engineer Intern, Amazon.com Services LLC, WA, USA

May 2020-August 2020

- Created a Cards Marketplace application in native AWS for a Content Execution internal tool used in amazon.com
- As a part of my project, integrated data from 3 data sources managed by different teams
- Used AWS CDK and Lerna to create backend infrastructures like AWS Lambda and API gateways
- Developed prefetch caching mechanism using DynamoDB and Serverless Lambda which reduced network calls by 8 times per page and decreased page loading time by 80%
- Used TypeScript with NodeJS, ReactJS, and Jest for Unit testing (100% code coverage) in CICD workflow

### Software Engineer Intern, Brainasoft, Gujarat, India

February 2019-June 2019

- Development of RESTful APIs for the company's products using Python-Flask and PHP to add 10 new features.
- Created a marketplace full stack mobile application in React-Native with PHP backend.
- Python Web Scraping with Beautiful Soup
- Designed an affiliate marketing system with a dashboard in PHP, MySQL. Where users can see the number of sales and the number of unique visitors came from their URL. Which increased sales by 10-15%.
- Web designing in ReactJS and Bootstrap 4 and code refactoring for the old design.

## **PROJECTS**

Smart RSVP (Python, Django, Bootstrap, ORM with SQLite3, ChartJS, Ajax)

- Developed a web app that counts event attendees using a QR code (Generated by Host) on an invitation card
- Each QR code has a unique string generated by MD5 hash.

News App - Responsive React SPA and Android App (ReactJS, NodeJS, Android, Bootstrap4, AWS lambda)

- ReactJS Single page application and Android application for latest news articles having NodeJS running on AWS Lambda
- Implemented bookmark functionality by local storage, Search with autosuggestion and sharing option to social media **React Native Signup Login Application** (React-Native, Expo, Python, Flask, MySQL, OAuth, JWT)
- Created using Expo and Python flask backend API which handles registrations and login with and without OAuth. It is an open-source project that anyone can use for their project for signup and login functionality.

Image classification of the distracted driver (Python, Machine learning, Deep learning, Keras, CNN)

• Classified image of a driver and Model predicts activity of driver from ten classes (Ex. Safe driving, texting, calling etc.) using Convolutional Neural Network. Gained almost 98% accuracy on the test dataset.

Discussion Forum website (Java, Servlet, JSP, DAO (Data Access Object))

• Developed a discussion Forum website in J2EE, Servlet and JSP. Hosted it for college students for 1 month.

Smart Building - Society Management System (PHP, MySQL database, Bootstrap)

Alert broadcasting, payment reminder, automatic fine calculator for late payments, event booking, etc.

# LEADERSHIP, ACHIEVEMENTS AND EXTRACURRICULAR ACTIVITIES

- Led a team in Hackathon organized by GirlScript Foundation (2017) and created a Smart Card based Health-Care management system using PHP and MySQL
- Awarded Certificate of Excellence Top Ranker 2 times from Dewang Mehta Foundation Trust (2017, 18)
- Amongst top 3 contestants in the inter-college coding competition organized by Gandhinagar Institute of Technology

### **CERTIFICATIONS**

- Machine Learning by Stanford University on Coursera (October 2018)
- Deep Learning, a 5-course specialization by deeplearning.ai on Coursera (January 2019)
- Algorithmic Toolbox by University of California San Diego on Coursera (June 2019)