

# 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, CI/CD Code pipelines, Lerna, React-Native, Android, Bootstrap, Git, Sass, Spark, Vue.js, 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)