Raj Patel

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EDUCATION

University of Southern California, Los Angeles, CA — August 2019 - May 2021
- Master of Science in Computer Science — GPA: 3.7/4
- Courses: Analysis of Algorithms, Foundations of Artificial Intelligence, Web Technologies, Foundations and Applications of Data Mining

Gujarat Technological University (Alpha College of Engineering), 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, TypeScript, Java, C, C++, JavaScript, HTML, CSS, Scala, PHP
- **Databases**: MySQL, SQLite, DynamoDB
- **Libraries, Frameworks and Tools**: Django, Flask, AWS Lambda – Serverless, AWS CDK, Jest, NodeJS, CICD Code pipelines, Lerna, NPM, React-Native, ReactJS, Android, Bootstrap, Git, Sass, Servlet, JSP, Expo, jQuery, Keras

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
- 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 increased loading speed by 80%
- Used TypeScript with NodeJS, ReactJS, and Jest for Unit testing (100% code coverage) in CICD workflow

Software Engineer Intern, Brainasoft, 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 React.JS and Bootstrap 4 and code refactoring for the old design.

PROJECTS

Smart RSVP (Python, Django, Bootstrap, ORM with SQLite3, Chart.js, 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)