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 infrastructure 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 user dashboard in PHP, MySQL to increase the number of sales, where user can see the number of sales and number of unique visitors came from their URL. Which increased sale 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 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 auto suggestion 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 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 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 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)