Sagar Patel

Software Engineer

San Diego, CA, 92110
(909) - 915 - 9064
sagarpatel@ieee.org
https://github.com/sagarp-patel

Qualifications

- Languages: Python, C++, Java, Javascript
- Database Management Systems: Oracle, MySQL, MS SQL Server, PostgresSQL
- Concepts: Data Analysis, Web App Dev, Mobile App Dev, Machine Learning, ETL
- Technologies: Tableau, Pandas, Plotly, Scikitlearn, GIT
- Operating Systems: Linux, Windows

Programming Projects and Technical Experience

Biomedical Data Engineer **October 2021 - Nov 2022**

Exact Sciences

- Developed Web Apps, LIMS System and create/maintain/update Tableau reports and update legacy code.
- Using a Django backend develop and maintain in house LIMS system, create new Monitoring reports for Lab Operations via Tableau, maintain and update legacy code, and assist in clinical studies and product development by generating requested datasets.
- Support daily lab activities such as data pulls for regulatory requirements, product development, customer service, QA and research.

SDIR Programmer/Analyst **March 2020 - October 2021**

UCSD Health and County of San Diego HHSA, SDIR

- Data analysis, report generation, ETL, task automation, assist with COVID19 vaccine distribution and interface monitoring for all data coming through numerous interfaces.
- Performed data analysis for COVID19 Reports for the county using python and oracle sql, assisted in designing, implementing and performing server migration,
- Developed a python application using Flask and Dash to monitor patient data coming in from various pharmacies, hospitals and health care facilities.
- Developed a testing utility to automate testing of the SDIR website, using selenium, python and javascript.
- Helped County of San Diego HHSA save about 100 hours each quarter in automated testing and data analysis tasks, and created an interface monitoring tool to monitor each of the interfaces to ensure no data was lost from all vaccine providing facilities around San Diego County.

Corona Chest XRay Classifier - Pytorch, Pandas, Python

- Developed a Residual Neural Network in order to classify chest X Rays as infected or normal.
- Used CUDA/GPU to process heavy computation and reduce training time.

- The Neural Network can classify X-Rays with 85% accuracy.

Smart Player - Machine Learning Project (Python, Numpy)

- Implemented a reinforcement learning model to overtime learn how to avoid collisions with objects.
- Developed a neural network, and the game using pygame in python.
- Neural Network was able to dodge over 100 obstacles.

Smart Bartender - Android/Raspberry Pi Project (Kotlin, Python) (https://bit.ly/2TmoZ1N)

- Developed a Smart Bartender that could be controlled via bluetooth, using an android application.
- Developed an android application capable of bluetooth communication with a Raspberry Pi computer for transferring data, 3D design case for electronics, and made some design changes.
- Published Smart Bartender on Google Play Store and assembled hardware.

Umvelt - Google Maps API/Android Project (Java)

- Developed and designed Umvelt from ground up to use google maps utility and implement key features.
- Implemented walking direction between two locations using Google Maps API, assisted in debugging issues with standardizing UI for different screen sizes.
- Developed MVP for a presentation, and demonstration.

Instructional Student Assistant for Tutoring Services November 2018 - June 2019

Computer Science and Engineering Department at CSUSB

- Provided tutoring in Computer Science Courses.
- Debugged labs and homework for students in C++, Java, C# and Python.
- Provided students with quality tutoring, and maintained tutoring center.

Mobile Application Developer April 2018 - September 2018

Information and Technology Services at CSUSB

- Implemented backend functionalities for teacher and student views to CaseAide Scholar.
- Used PHP and SQL(MySQL) to implement functionalities such as edit clients, maintain student records, and improved information flow by restructuring the database.
- Improved information flow, by restructuring tables in the database.

Education

Johns Hopkins University Present

Master in Science Applied Biomedical Engineering

California State University San Bernardino, Ca June 2019

Bachelor of Science in Computer Science

Relevant Courses: Machine Learning, Intro to Artificial Intelligence, Statistics