

VIJAYASAI SANAGARAM

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EXECUTIVE SUMMARY

Software Engineer with attention to detail and excellent communication skills and programming knowledge. Proficient in various platforms, languages and with innate ability to learn and master new technologies. Interested in building innovative products and learning innovative software project management techniques. Looking for a career in an established firm that is both challenging and rewarding.

TOOLS & TECHNOLOGIES

Programming skills - Python (Flask and Django) | Data Structures and Algorithms | OOPS

Web - Angular | JavaScript

Cloud - Cloud Foundry, **Containers** – Docker

Others - Ubuntu | Agile | JIRA | GIT

Familiar with – AWS | Kubernetes

My Skills - https://www.hackerrank.com/vijayasai257?hr_r=1

EDUCATIONAL QUALIFICATIONS

- B. Tech in Computer Science from Vellore Institute of Technology, Vellore. Graduated in 2018.

WORK EXPERIENCE

Siemens Technology India | Jul 2018 – Present | 2 years 1 month

- Owned the development of a product called Bill of Quantities (handled complete backend). The project is regarding the prediction of domain specific Bill of Quantities based on set of project attributes and the historic data from the existing power plants. It has role-based structure. Features include -
 1. Prediction of Bill of Quantities based on the historic data.
 2. Comparison of bill of quantities it can be with the historic data.
 3. Similarity Index (implemented using Data Science) between the projects.
 4. Users can create project or upload project using the set of project attributes.Developed in Python (flask framework) and Angular. Project structure is being considered for other disciplines.
- Owned the development of reusable chat component for Veronica (Chat bot). It is developed in ReactJS and can be used for domain specific queries. This reusable chat component is platform independent. It can be plugged to ReactJs as well as Angular. The chat bot is also equipped with speech recognition and web speech API to read out the response like Google Assistant. It is in production used by domain experts
- Developed synonyms for different target words (intents) using natural language understanding for Veronica chat bot. The intention is to give the same response for target word and its synonyms. This is developed using Rasa framework.
- Developed test cases using pytest for ETL based project where ETL is carried out entirely on python.

- Developed a prototype to generate early warnings when there is changes in the requirements etc.

Hitachi Vantara | Dec 2016 – Jan 2017 (Internship)

- Owned the development of a gallery app. The app has the features to take photos and save it in the local directory. The photos taken can be shared. It is developed using Android Studio. This app works greater than or equal to Android 6.0.

CERTIFICATIONS

- Applied Machine Learning.
- Hacker rank certifications.

PUBLICATIONS

- iCart: An Image Selling Platform

ACCOMPLISHMENTS

- Spot Award (Siemens Technology India)
For Flexibility, dedication and ownership skills on multiple use cases and commitments.

INTERESTS

AI/ML | Cloud Technologies | Data Science

LIST OF PROJECTS

Personal Projects

1) Implemented weather application using OpenWeatherMap API based on the geolocation of the user. Implemented video.js player for Http Live Streaming videos and mp4 videos. Developed using ReactJS. URL - https://sngrmvj.github.io/ReactJs_Imps/

Personal projects are available in the GitLab. The link to my profile is available below.

<https://gitlab.com/sngrmvj>

Work Experience Projects

BoQ (Bill of Quantities)

It is to enable users to predict domain specific bill of quantities based on set of project attributes and by historic data. The project has role-based structure where admins have the privilege to tweak the ML model and provide historic data for prediction. Users can create projects or upload project based on set of attributes or use historic data as reference and create a project. Features include -

- Prediction of Bill of Quantities based on the historic data.
- Comparison of bill of quantities it can be with the historic data.
- Similarity Index (implemented using Data Science) between the projects.
- Users can create project or upload project using the set of project attributes.
- Developed in Python and Angular. Implemented REST APIs.
- Deployments are into cloud foundry for both Developer and Operator tenants.

- Implementation of SonarQube for code quality both in Windows and Linux.
- Implemented CICD in GIT. Implemented Swagger Documentation for all the REST APIs.
- Project follows Agile methodology and we use JIRA for sprints, stories etc.

Veronica

Veronica is a chat bot which responds to the domain specific queries. This is developed using Rasa NLU framework. It is not limited to one discipline and can be used by the different projects of different disciplines. It works by recognizing the target words called intents. Each intent has data for training and each data is called entities. Every intent has a generic response, or you can create a customized response to each entity.

- Developed synonyms for different target words (intents) using natural language understanding for Veronica chat bot. The intention is to give the same response for target word and its synonyms.
- Owned the development of reusable chat component for Veronica chat bot. It is developed in ReactJS and we can get the response from the chat bot by sending the intent or entity. We can try synonyms for the intents. This chat component is platform independent. It is in production where domain experts are using this.

Dashboard for Early Warning (DEW)

In the workflow of a project, there will be changes in the requirements/documentation/methodologies and changes etc. An Application that generates early warnings to engineers/ fabricators and they can see the changes and the intensity or importance of the change respective to their discipline as soon as the changes take place. The warnings can be added manually or using AI we add the changes.

- Owned the development of a prototype (wireframes) to generate early warnings to the engineers or fabricators whenever there is a change in the requirements/attributes/documents etc. The prototype is successful, and the project is under production. It is developed in Axure RP tool.

Data Integration Layer (DIL)

ETL project. ETL (Extraction, Transformation, Loading)

1) Data of powerplants like shipment details, pipes etc. is collected and stored it in data lake. Data we get doesn't have any specific format. Each segment of the powerplant has their own format like XML, CSV etc. So, it goes through the Extraction phase where we get the data then it goes through Transformation phase where we transform the data into format (.ttl), perform preprocessing to be able to upload to graph database. Before ETL process, there is another phase called Domain to ontology where domain specific names are segregated and converted into user understandable names which basically acts as schema for the graph database.

- Owned the development of test cases using Pytest both in windows and ubuntu (Virtual Box).

Project VJ (Internship)

Gallery App to take photos and save it in local directory. It can be shared to any other app. The App has the features to take photos using camera, view all the photos taken with the camera. The saved photos can be shared to another apps.

- Owned the development of the app.
- Developed in Android Studio. Works with the phones having Android 6.0 and above.