# RAVI

## **CAREER OBJECTIVE**

Leverage my technical experience in order to create value add for the organization, facilitating growth for the company as well as myself

## Roles I am looking for :

• I prefer to work as software developer (software dev/software engg / SDET)

## **ACADEMIC DETAILS**

Completed my B.E in Electrical Engineering 2012.

•	10 th	(2005)
•	12 th:	(2008)
•	BE	(2012)

Total Work Experience : 8 years and 4 months as of date still counting

# PROJECTS

## Senior Software Engineer (Apr2020 - till date)

I am working towards developing an automated testing framework for testing IVR based solutions that involves voice call analysis and testing various other routing+recording based modules within the system, but what I predominantly world on was creating a definition driven test engine to create and run tests on the fly.

Key Development:

- Writing python+selenium based scripts as per norms and standards.
- Writing the backend API for create/edit/delete of testing definition.
- Writing the logic to convert the UI capture to a selenium driven code.
- Writing the UI capture module

- Writing the docker files to deploy the application
- Validation pipeline to validate the definition.
- Data pipeline to store the definition.
- Revamp the project from FastAPI/Django to rust based Axum for serving the API.
- Writing a multi thread simulation tool.
- Utilizing the tokio based native functions for async API development.
- Utilizing the MPSC for queue based communication between threads.
- Writing a Freeswitch based caller / tester
- Creating the optimal search engine for multidimensional search for record based / result based.

Key Tools/Frameworks Used:

- Python w/ Selenium
- Django / FastAPI for creating endpoints
- Docker
- Pycharm (Editor)
- MySQL db + Postgres
- Rust
- Tokio
- Axum
- Lucene / ElasticSearch

# Senior Software Engineer ( Feb 2019 - Apr 2020)

I am working towards developing automated tools for various diagnostics parameters for the product also in the development of automation test framework for the complete testing of the product for client Cisco

# Key Development:

- Developing smart approaches towards the automated functionality for extracting data
- Selenium for functional and UI based test cases.
- Smart packager developed as per cisco norms
- Angular2
- Python + Flask
- Netmiko for ssh/telnet login
- Porting the API to rust based Rocket API.
- Writing MySQL db fetch/store function using django ORM.
- Redis as job store for scheduled execution.
- Writing automated test cases in pytest.'
- Utilizing rust tokio thread to create the multithreaded workers.
- Server side deployments with AWS with autoscale capability
- Elastic search for implementing the search mechanism to find a given test result
- Tuning the machine RAM/memory for optimal operation (throughput + cost).

## Key Tools/Frameworks Used:

- Python w/ Robot Framework.
- Rust w/ Rocket.
- Selenium w/ Chromedriver.
- Django for creating the REST api .
- Netmiko for ssh/telnet login.
- Redis.
- ElasticSearch / Lucene
- MySQL DB.
- Pytest for writing the test suite.
- Writing UI test cases.
- Automated test runner using redis.

Role: Senior Software Engineer Operating Systems:

• Ubuntu 12.04 LTS / 14.04

# Senior Software Engineer ( Sept 2018 - Jan 2019 )

I was responsible for the API / backed fixes as per the customer requirement, Also at time it would be required that I do analysis of faults and do the appropriate fixes for the same. I had to develop some pytest based testcase that were run on-demand to get the result whether any integration or data faults are occurring.

## Key Development:

- Backend fault analysis.
- Job Schedule fault analysis.
- Adding patches to the older version of API or the latest API .
- Maintaining a service record for each customer understanding the faults and creating a fault repository .
- Writing PyTest test cases.
- Modifying the libraries written in C++ with python wrappers.
- Writing POSTMAN suite based test cases.
- Writing Asyc jobs in Pyspark.
- Improving the search engine and search results / creating better indexing mechanisms.

## Key Tools/Frameworks Used:

- Postman
- Selenium
- Python 2/3
- PyTest
- C++
- Redis

- Pyspark
- PostGres
- ElasticSearch

Role: Senior Software Engineer

# **Operating Systems:**

• Mac

## Senior Software Engineer ( Dec 2017 - Aug 2018 )

I worked on FIGS trading tool which is used for trading across various international stock the main project includes Development of a FIGS application which encapsulates certain features such as stock display, informatics via representation.

## Key Development:

- Deployment/Packaging the entire code.
- Writing angular components + services for creating new functionality.
- Patching Old known + unknown Bugs.
- Modifying the C++ based libraries / testing the same.
- Writing the REST api for new functionality.
- Writing the functional test case and UI test cases.
- Writing a scheduled script to execute insert data.
- Writing the Pytest automated test suite to check if integration and data are valid.
- Using Pyspark for data breakup and report creation using pyspark

## Key Tools/Frameworks Used:

- Python w/ Django + DRF
- PyTest
- Selenium w/ Python
- JIRA for bugs
- C++
- MySql/Postgres database
- Redis
- Pyspark

#### Role: Senior Software Engineer

## **Operating Systems:**

- Mac
- Ubuntu 12.04

# Sr Software Engineer (Sept 2016 - Jan 2017) - BreezeIVR

I am working on BreezeIVR on the algorithm design side, for incorporating the following features into the products Amplitude Detection, Pitch Detection, MFCC Feature Extraction using native python 2.7 and numpy for voice based activity detection.Developed PyQT based trainer for the program.

# Key Development:

- Development of the features from scratch .
- Exposing the features as API for the team to consume .
- Writing C++ modules for the Scipy algorithm optimization.
- Testing the API.
- Writing store function to save the data in MySQL database.
- Checking if the feature worked correctly .
- Writing scheduled programs using APScheduler.
- Using Pyspark for performing the OCR routines
- Using Lucene to create a search for the features for abnormality detection

#### Key Tools/Frameworks Used:

- Python w\ Django
- C ++
- Python w\ Numpy and Scipy
- Automated Testing using selenium and pytest + POSTman (API testing)
- MySQL DB + Postgres
- Lucene

Role : Sr Software Engineer

## **Operating Systems:**

• Mac

## Technical Member/ Sr Software Engineer (Mar 2016 - July 2016)

team worked for sales force automation for their products using native python 2.7 and django 1.6 as a framework of choice the automation platform (bajajSFA CV/MC) was tailored as per the organisation need for simplicity, on the frontend side we used HTML, CSS, javascript (functionality), bootstrap and for development we deployed it on AWS and production on AWS server whilst all this the primary operating system was Ubuntu 14.04 the database of choice used here was MySQL and the entire project was controlled via AWS dashboard and also the real time notification were done via GCM.

## Key Development:

- Writing new updated API also Patching the old non-functional API
- Testing the Old API
- Validating if the OLD api functioned correctly.
- Modifying the UI as per the BUG list
- Creating new UI as per requirement

#### Key Tools/Frameworks Used:

- Python w\ Django
- Request module for API testing
- Automated testing Testing + POSTman (API testing)

Role: Technical Member/ Sr Software Engineer

#### **Operating Systems:**

• Ubuntu 12.04

# Software Engineer / Sales Engineer (2013-2014)

At edge networks I developed on the Talent Acquisition module which was coded in python 2.7 and Flask and then translated into a reusable app for several clients as per the organisational requirements here I also developed for backend large volume processing celery was used for asynchronous task queuing and the other services of the system were connected via RESTful API's which again were set up by the team in which I was a part the results were stored in mongo datastore and the indexes were maintained by elasticsearch for quick searching , also we have implemented an pair match algorithm, Keyword extraction via HMM here custom tailored as per the organisation needs.Developed a trainer for the HMM based on PyQT.

## Key Development:

- Writing new features for the development of the above mentioned requirement
- Work closely with the UI team to ensure the feature got incorporated in the UI
- Test the feature of the UI manually and API data.

## Key Tools/Frameworks Used:

- Python w\ Django
- Python w\ Numpy
- Request Module based API Testing

Role : Software Engineer / Sales Engineer

## **Operating Systems:**

• Mac

# **My Own Projects**

Here are some projects that I have build myself, these product target the RC products including 3-axis stabilizer / RC(2.4Ghz) RX+TX with FHSS capability and bind mode similar to the commercial counterparts with hardware case , pcb, software.

#### **Repos:**

- https://github.com/RaviPrasadWA/AHRS
- <u>https://github.com/RaviPrasadWA/RX</u>
- https://github.com/RaviPrasadWA/TX

#### **3D Models:**

- <u>https://grabcad.com/library/ahrs-case-2</u>
- <u>https://grabcad.com/library/rx-case-2l hereby declare that the above-mentioned information is correct</u> up to my knowledge and I bear the responsibility for the correctness of the above-mentioned particulars.

## **DECLARATION:**

I hereby declare that the above-mentioned information is correct up to my knowledge and I bear the responsibility for the correctness of the above-mentioned particulars.

(Ravi)