RAMYA RAGHU

Bangalore, India | +91-9443164932 , +91-8296000559 | ramyaraghu92@gmail.com

Profile Summary

I have two years and five months of experience in Thermofisher Scientific as a Software Engineer, 11 months of teaching experience in Met's School of Engineering, and 7 months of internship experience in the research wing of Honeywell Technology Solutions.

Executive Summary:

- Hands on experience in algorithm development on Python
- Experienced in working as a Scrum Master (certified CSM)
- Experience in working with AWS Batch, EKS, EC2, ECS, S3 and Lambda.
- Experience in docker, creating Dockerfiles and docker containers.
- Experience in working with the MySQL and Oracle database to fetch the required data in the desired format.
- Worked on Perl and Shell scripting
- Experience in creating JAVA application.
- Hands-on experience in integration and working of various tools like Kafka, InfluxDB and Grafana.
- Hands-on experience in the analysis and processing (cascade effect removal) of real time fault data from the aircrafts.
- Experience in working with the Intrusion Detection System
- Basic Knowledge in Hadoop

Professional Experience

Engineer I	**July 2017 to present**
Thermofisher Scientific	**Bangalore, India**

- ➤ Creating panels to support cancer research and liquid biopsy.

  - The human genome is heavily populated with repeat regions which makes designing **primers** difficult, a well-known challenge in PCR design. The **Ion AmpliSeq Designer** pipeline has been developed to deliver the most robust set of amplicons it can generate.

  - Programming Language Used: **Python, Perl and shell**.

- ➤ DevOps project
  - The environmental setup of the entire backend (pipeline) was based on the third party (cycle team), now replaced by AWS
  - Technology used: **AWS Batch, Lambda, EC2 and S3**
  - **Shell scripts** to run deployment scripts from the manager node
  - Created a separate Dockerfile to hold UI and Pipeline with all the necessary packages.

- Importing WhiteGlove pipeline to Designer Pipeline (Ongoing)
  - Working on a new product that has the ability to handle customized design requests, has higher coverage, higher specificity and more user friendly
  - Working on **EKS, Python and Shell**

- Working as a **ScrumMaster** for the team(certified CSM)

Assistant Professor   **July 2016 –April 2017**
MET's School of Engineering   **Kerala, India**

- Subjects Taught: JAVA, Python, Datamining
- ISO coordinator
- Head of Govt. funded project proposal, "E-Waste Management" put forward by the Principal.

Technical Intern (Master's)   **December 2015 to June 2016**
Honeywell Technology Solutions   **Bangalore, India**

- Creating an application to parse the Component Maintenance Manual to the database and to retrieve the required results in the desired format to display on the screen.
  - Programming Language Used: **Java**.
  - A User Interface was created using AWT class. The created system also had a Database connectivity established through JDBC.
- Building an Onboard Maintenance System on ground.
  - Assuming the flight data is in the cloud, collect the data through the Kafka into the Influxdb and later to the Grafana, the visualizing tool. Retrieve the details from InfluxDB to perform fault processing with the help of the aircraft database and the parsed manuals.
  - Programming Language Used: **Java**.
  - An interface was created using AWT class through which a connection was established with the InfluxDB to retrieve the details. Further processing, to remove the cascaded effects was done on the collected data with the help of the data that was stored in the database for CMM parsing. Thus a JDBC connection was established.

Skills

- **Programming Languages :** PYTHON, Basics of Perl and JAVA(CORE JAVA , JDBC), Fundamentals of C++ and shell scripting
- **Operating Systems**   : Mac**,** Windows, Linux
- **Knowledge in**   : Devops**,** AWS, Sublime**,** Grafana, InfluxDB, Kafka, Hadoop, selenium

Achievements

- Secured first rank with **CGPA 10 for M.TECH** in the academic year 2015-16.
- **Best paper award** for the paper" Empirical analysis on the population diversity of the subpopulation in distributed Differential Evolution Algorithm" in the year 2016.
- Part of **IBM** funded project – **Intrusion Detection System** to create a Hadoop cluster and to apply data mining concepts on real time data at Amrita School of Engineering, Coimbatore.
- Have got the Bhavan's scholarship award.
- Was the Kalathilakam and have got several state level and district level prizes for literary items.

Projects and Research Activities

Theoretical analysis of distributed Differential Evolution (MTECH)

(Domain: Evolutionary Computation/ Artificial Intelligence)

Description:
Theoretical expression for the different variants of DE has already been derived.
Distributed Differential Evolution(dDE) shows improved performance when compared to Differential Evolution. This improved performance is mainly due to migration of best candidates from subpopulations. But there is no theoretical (mathematical) expression to show the effect of this cooperative co-evolution on dDE. This work focusses on deriving the theoretical expression to measure the population variance of distributed Differential Evolution.

Programming language used: Java – to code the DE algorithm and to measure the variance of the population using equation and its comparison without equation for distributed and non-distributed environments.

Publications

- Ramya Raghu, G Jeyakumar," Mathematical Modelling of Migration Process of Distributed Evolutionary Algorithms", Indian Journal of Science and Technology, Vol 9(31), August 2016 – Impact Factor :0.63
- Ramya Raghu, G Jeyakumar," Empirical analysis on the population diversity of the subpopulation in distributed Differential Evolution Algorithm", International Journal of Control Theory and Applications, 8(5), 2015, pp. 1809-1816 – Impact Factor: 2.4

Education

Master of Technology: Computer Science and Engineering [2014 – 2016]
- Amrita School of Engineering, Coimbatore
- Aggregate: 8.8 GPA

Bachelor of Technology: Computer Science and Engineering [2010 - 2014]
- Federal Institute of Science and Technology, Kochi, Kerala
- Aggregate: 75%

12th
- Bharathiya Vidya Bhavan, Thrissur, Kerala [2010]
- Aggregate: 83%

10th
- Bharathiya Vidya Bhavan, Thrissur, Kerala [2008]
- Aggregate: 88%

Personal Snippets

Date of Birth	:	07 March 1992
Languages Known	:	English, Malayalam, Hindi
Marital Status	:	Married

Declaration

I hereby declare that the above information is true to the best of my knowledge.

Ramya Raghu