Rashmi Raghunandan

https://rashrag.github.io rashmi.raghunandan93@gmail.com +919986560718

Information

- GIT Handle: rashrag
- LinkedIn: https://in.linkedin.com/in/rashmi-raghunandan-97b85a5
- Date of Birth: 8th July,1993.

Education

BE COMPUTER SCIENCE|SEPTEMBER 2015-MAY 2015| PES INSTITUTE OF TECHNOLOGY

- *GPA:* 9.46(major); 9.2(overall)
- *Honors:* Distinction Award in all 8 semesters.
- *Related coursework:* Operating System, Big Data, Unix System Programming, Database Management Systems, Computer Networks I & II, Computer & Network Security, Computer Architecture & Organization.

PRE-UNIVERSITY|MAY 2009-APRIL 2011| R V PU COLLEGE

- *Aggregate:* 95.6%(PCM); 94.5%(overall)
- *Honors:* Rank 13 in Karnataka State, India.

ICSE|JUNE 1998- APRIL 2009| INNISFREE HOUSE SCHOOL

- *Aggregate:* 89.91%
- *Honors:* Proficiency Awards in Computer Applications, Mathematics, History, Civics and Geography and Environmental Education.

Professional Experience

CLOUD ENGINEER |CISCO SYSTEMS PVT. LTD.| FEBRUARY 2015- TILL DATE

- *Description:* At Cisco Systems, I am part of the 'Infrastructure as a Service' team, focusing on developing, automating and orchestrating infrastructure that supports cloud native applications, built on Cisco's ACI fabric.
- *Role:* . Automation of Image Management (Upload, create from VM and delete)
    - VM creation automation
    - Dynamic resource sharing on clusters.
    - A POC on stateful containers (own idea).
    - Deploying Elastic Search in the cloud.
    - Introduced a bi-weekly knowledge Session focusing on new technologies within the team.

UNIVERSITY RELATIONS | IBM – ORDELL UGO (PESIT)| MAY 2013-SEPTEMBER 2013

- *Description*: IBM Pure Applications is a pre-configured system for PAAS solution. The aim of the project was to replicate the converged system architecture, develop e-commerce patterns and implement order management. The degree to which the system was transaction oriented and database friendly was demonstrated.
- *Role:* Responsibility as secondary team lead involved acting as a bridge between IBM and university team to communicate requirements, discuss problems and possible solutions. We implemented an e-commerce pattern (reusable solution.). The underlying infrastructure was also setup and hosted in the university campus.

Academic Projects

AUTOMATED VIDEO SURVEILLANCE | INDEPENDENT STUDY| CLOUD AND BIG DATA RESEARCH

- *Description*: A research project to automate suspicious activity detection based on context and objects.

  Role: Responsibilities involved study of various surveillance, image and video processing techniques. An algorithm was developed to assign an object a suspicious level based on the context of its appearance and make the machine self-learning with each occurrence of the object in real time. The object detection was performed in a cloud computing environment with a map reduce technique using Matlab's parallel computing toolbox yielding 70% accuracy in object detection. The algorithm was implemented in both a single node and multi node environment.

MAP GRAPH API | BIG DATA

- *Description:* A study on the performance of Map graph, a parallel graph database that runs on a GPU and its comparison with other distributed graph databases.
- *Role:* Part of the four member team for the Big Data course Project. Map graph was installed on different GPU's, algorithms(Breadth First Search, Depth First Search, Single Shortest Path, 2-colorability,cycle detection, Six degrees of Separation) were implemented and run to compare performances against distributed databases like GoFFIish and Giraph.
- *Additional Work:* Setting up of GPU clusters using open source and free software.

CONGRUENT NETWORKS| SOCIAL NETWORKS

- *Description:* The project involved a study of the behavior of the two psychological groups: introvert and extrovert in a social media context.
- *Role*: Research and dialogues with experts from NIMHANS, Bangalore, India. Creation of a questionnaire and categorization of a sample set of 100 students from PESIT into the two groups. Monitoring their activity to understand the behavior of the two groups in social networks.

SOCIAL DATA AND AGGREGATOR OF KNOWLEDGE | SOCIAL NETWORK

- *Description*: A proof of concept project to consolidate information from different social media profiles of an individual to provide a holistic view of a person to the user. A query system to access to relevant information was also built.
- *Role:* Responsibilities as part of the three member team involved data collection, data generation, literature Survey, Data flow and Interface Design and Research on different Analysis tools like DBpedia, Fred, OpenCalais and Alcehemy.

E-COMMERCE DIALOGUE SYSTEM | NATURAL LANGUAGE PROCESSING

- *Description:* A project implemented as part of Natural Language Processing Elective. The project involved designing a dialogue system between a computer and potential mobile buyer to assist him in his choice.

- *Role:* Implementation of Viterbi algorithm and feature functions, Rule based natural language generation.

TESTCO | WEB AND SOFTWARE ENGINEERING

- *Description*: A project to build a test system. Students are allowed to take timed and untimed tests, with pre decided or relative difficulty levels. Teachers can submit questions and evaluate descriptive answers. Drawing boards and calculators were made available in the system.
- *Role:* Responsibilities as a team lead involved managing and assigning tasks among fourteen members and coding in PHP, HTML5 and working with mongodb. This was a software engineering course requirement project.

ONLINE SCRABBLE | UNIX SYSTEM

- *Description*: A design project to create an online scrabble system. The project involved designing a parallel system to support multiple game rooms and using inter process communication mechanisms like shared memory, semaphores, pipes, etc.
- *Role:* Responsibilities involved working on design of blocking and waiting of players, communication between rooms, allowing multiple games to run in parallel.

MAKE TOOL | ALGORITHMS

- *Description:* A project to emulate the behavior of the system make tool using parsers, multi lists and binary trees.
- *Role:* Responsibilities involved managing and assigning tasks. Individual contribution included the end to end design, interface design and development of multi list modules in C.

REGISTER ALLOCATION | COMPILER DESIGN

- *Description*: A project to simulate the code generator and optimizer phases of the compiler for a C program containing simple assignment statements and arithmetic operations and a simple jump instruction.
- *Role:* Responsibilities involved design and code to break the instructions into basic blocks, containing a maximal sequence of three address instructions and converting the intermediate code into quadruples in python.

'Tech for Good' Competitions

GRACE HOPPER CONFERENCE, INDIA | CANCER SOCIETY OF INDIA| AUGUST 2015- OCTOBER 2015

- The aim of this project was to create an app that helps volunteers in the process of screening for cancer with focus on throat cancer. The team of 4 led by me created profiles for doctors, volunteers and admins. The reports and data could be accessed offline in rural areas. The doctors could be assigned based on importance of the case and volunteers could follow up cases assigned to them in a simple manner.

J P MORGAN CHASE, INDIA | ENABLE INDIA | JULY 2014

- The aim of this hackathon was to create a website to help those with disabilities to develop a mentor mentee relationship to pursue their interests or careers. The website was designed keeping in mind the visually impaired as well.
- We won the First Place in the NGO round of the hackathon and the product was incubated into Enable India.

IBM- THE GREAT MIND CHALLENGE, INDIA | VIRTUAL POLICE STATION | JANUARY 2013-SEPTEMBER 2013

- The aim of this competition was to create a web application to help the Indian police system. This was available to the public to raise cases without being physically present at the police station. The police could perform their duties and request information through the same platform.
- We qualified to the final round in the competition.

Hackathons and Hobby Projects

KEEP-TRACK | DECEMBER 2014 – TILL DATE

- Keep-Track is an app that helps you keep tab on your activities. Using the notes and calendar feature, one can be more productive.
- This app is currently available on the Android market.
- As part of this initiative comprising of two people, I learnt about marketing, analytics and review systems.

DRINK SAFE | AYANA HACKTHON | 2014

- The aim of this project was to develop an app that would detect if a person was under the influence of alcohol using context and location based information. It was a machine learning application that would keep a person safe by using GPS, location and accelerometer.
- As a team of 2, we qualified to the TOP 8.

OTHERS

- Location based Emergency helper– Ingenius, 2015 – A crowd sourcing app to help people in your vicinity.
- Universal Remote – Ayana 2013(Hackathon) – Qualified to Top 10
- Profile Based Phone Access – Hash Code 2013(Hackathon).
- Set 4- A multiplayer card game developed as both a Java standalone and Android app
- Titanic- A HTML 5 canvas game to navigate a ship through icebergs. Inspired from Flappy Bird.

Skills

- Languages: Python, Java, C, Bash, PHP, HTML5, Java Script, Angular JS, CSS.
- Backend: SQL, Mongo DB, Node JS.
- Tools: Elastic Search, VMware VSphere, IBM WebSphere, Toad, Cisco Process Orchestrator, Rally.
- Others: Hadoop, Matlab, GIT, Puppet, Stackstorm (an open source orchestration environment), Ionic.

Trainings

OpenStack Basics, Hadoop and Spark, Puppet Basics, Oracle Database Architecture, Angular JS.

Miscellaneous

- Cisco Connected Women Volunteer
- CSR Events – Sapling Plantation, Communication with the disabled, infrastructure setup for schools.
- Editor, Voice of S&H (PESIT science and Technology newsletter) for the year 2011-2012.
- Event Manager, Vithvara(2012), Science Fest, PESIT
- Secretary for INTERACT (student body of ROTARY CLUB) during 2008-2009
- Editor, Innisfreeite (quarterly school newsletter) for the year 2007-2008.