Ramesh Nadavati

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Interests

Big Data, Data Mining, Machine Learning, Internet of Things (IoT).

Education

June2016 **Master of Science**, Computer Science and Information System
University of Michigan; Flint
Advisor: Dr. Murali Mani

May 2014 **Bachelor of Technology**, Electrical and Electronic Engineering
SITE, Jawaharlal Nehru Technological University Anantapur
Honors in Electrical and Computers
Minor in Mathematics
Advisor: Late prof. G. Sanjanna, Prof. A. Sandya Sri

Experience

Fall 2011 **SITE**, Andhra Pradesh, India
Employee | Linux/Unix, Network Administrator, System Administrator

- Working on installing and updating software's, windows. Providing access, connection, performances etc.. as a Network Admin. Backups and restores, as a System Admin. Giving
- support to the students and professors in the university. Installing and Configuring Configuration management tools like Zenoss and Nagios etc.

Summer 2013 **Microsoft Research**, Madras, India

- Summer School on Wireless Networks
- Attended a Summer School on topics such as Random matrix theory and wireless networks, Stochastic geometry for wireless networks.
- Secured 8th/90 in the Random matrix theory and wireless networks among Summer School participants.

Summer 2014 **Microsoft Research**, Madras, India

- Summer School on 1. Statistical physics methods in coding/info theory 2. Mesoscopic perspective on network dynamics.
- Attended a Summer School on topics such as physics methods in coding, developing those methods pre results in Matlab Simulink. Deep research in advanced network dynamics and
- mesoscopic perspective on network dynamics.
  Secured 2nd place among 95 for driving the methods into results in the Matlab Simulink software.

Summer 2012 **RTTP**, AP, India

Internship | Junior Network and System administrator, Substation Control Engineer.

- Responsibilities are providing access, control and maintaining register for noting the distribution of power quality. Every hour checking the substation readings and calculating the amount of power loss etc using network theory concepts. Responsible for submitting the documents on every day to the manager.

Fall 2013 **S.V. University College of Engineering**, AP, India

Research Intern | Databases and Algorithms | Guide: Prof. G.Sanjanna

- Worked on the problem of sorting and searching the list of students based on their qualifications in different aspects and their Bio's.
- Explored new possibilities of improving the current best list of students and their qualifications list: Developed and re-designed some links and gave options to search proper student details in mean time

Research

– 2014 **Bachelor's Thesis**, Dc-Distribution Application | Guide: Prof. M. Purushotham

- In a dc-distribution system, a bidirectional inverter is required to control the power flow between dc bus and ac grid, and to regulate the dc bus to a certain range of voltages. A droop regulation mechanism is required, according to the inverter inductor current levels to reduce capacitor size, balance power flow, and accommodate load variation is proposed. Since the PV array voltage can vary from 0to600v, especially with thin-film PV panels, the MPPT topology is formed with buck and boost converters to operate at the dc-bus voltage around 380v.

Talks and Seminars

May 2016 **Big Data for small formers**
UM; Flint

Sep 2015 **Table Functions in Oracle**
UM; Flint

May 2015 **Machine Learning Concepts**
UM; Flint

Jul 2014 **Sketch-based algorithms in Machine Learning**
UM; Flint

May 2013 **Nature of Solar energy and wind energy**
Site Tirupathi

Nov 2013 **Cloud Computing**
S.V. University Tirupathi.

Teaching

Winter 2016 Database Design, Unix, Visual Basic, Oracle Databases DBMS, SQL, PlSQL, Algorithms, Python, Java Basics.

- Graduate Teaching Assistant at tutor lab

Honors and Awards

- Achieved 2nd rank in Ramanujan Mathematics and competitive test among all the departments in the university.
- Recipient of the Research Scholarship under SVU Funding's, in 2012
- Secured 2nd position in the State Level Regional Mathematics Test. Recognized and Certified as among 0.1% students, in the Maths, Physics, Chemistry in 2006.
- Received an award in "two days Robotic Challenge" for the successful completion of coding for "street follower robot using hand controllers".
- Received multiple awards for best dance performances.
- Received best outgoing student award for excellence in academics and cultural activities.

Projects

June 2016 **SAE Baja Team:** University of Michigan; Flint.
Here me and my team is putting efforts towards designing the new cheapest car with high flexibility and mileage.

Winter 2015 **Table Functions in Oracle and their performances**
Reviewed the performance of table functions in oracle and output ranges using pipelined and parallel methods. The tested dataset is giving faster output than the normal execution of dataset. We understand and concluded that the parallel and pipelined methods helps for faster execution.

Winter 2016 **Creating connection between Java and Database.**
Here my task is to obtain results in Eclipse by writing programming code in java and creating tales in DBMS. I completed my task using Java link connection to DBMS and performed the required task obtained required results.

Fall 2015 **Machine learning concepts in recognition of Face and Iris |IR |Guide:Dr. M.Farmer**
Worked on machine learning concepts related to Biometric recognition, for this project reviewed almost 40 articles and understood some important concepts. Final report submitted to the professor by including major concepts related to the biometrics research and performed testing the professor dataset and made some corrections.

Spring 2015 **Texture Synthesis by Non-Parametric Sampling**
Here, Modelled texture as a Markov Random Field where the texture synthesis process grows a new image outward from an initial point, one pixel at a mean time.

Leadership Positions

– 2014 **Head of in class Mathematics Forum and C R for Department**, SITE Tirupathi
Part of the Department Undergraduate Committee; Here we deal the unsolved and complicated problems, R&D Dept.; led a team of 23 mentors and the Dept. [96 students]

– 2014 **Conducted workshops, speeches and events,** SITE Tirupathi
Conducted workshops related to the robotics and embedded engineering etc.. conducted many events related to the academics, meet & great functions etc.

Responsible for taking care of 7 freshmen students focusing on their academic development and leading the Anti Ragging Squad in the university.

– 2016 **Member at Indian student ambassador's**, U of M USA

My responsibilities are interacting with fresher's and junior students. Helping them in finding the houses for rent, explaining the rules and regulations in the usa. Taking them to grocery stores etc..

Technical Skill Set

Programming Languages: C, Python, Java,
Statistical Computing: Matlab,

Miscellaneous: MySQL, Oracle, SQL, PLSQL, HTML, CSS, LaTeX, Prolog

References

** contact details are available upon request.*

Prof. Dr. Michael Farmer
U of M; Flint, USA
Computer Science HOD

Prof. Dr. Murali Mani
U of M; Flint, USA
Computer Science Program Associate

Prof. A. Sandyasri
SITE Tirupathi
BSE Engineering

Prof. K.Ramakrishna
SITE Tirupathi
BSE Engineering