**Nidhi Narayanan ( 903-363-8413)**

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**SUMMARY**

* Experience in Python, Microsoft database, making models, prototypes of products in three-dimensional design software.
* Able communicator, adept at working in both individual and team settings, and creating strong relationships with coworkers.
* Analytical thinker, proficient at identifying and resolving technical problems.

**TECHNICAL SKILLS**

* Designing and conducting quality and error correction tests on programs, Circuits and recording, analyzing and interpreting test results.
* Can Design computer software using Python, C, C++, Java for Industrial and scientific purposes
* Amateur Android mobile app developer using eclipse

**O/S:** Unix/Linux, Windows, DOS, Android, Ubuntu, Microsoft server 2003/2008, Windows 7/10, vista

**Languages:** Java, Python, C,C++, MATLAB, MATHCAD, Latex (+BibTex), Labview, SPICE, Verilog, OpenCV.

**Tools:** Eclipse, Adobe Photoshop, Microsoft excel, publisher, Netgen, TinyCAD, Geda, Qualtrics, NetLogo.

**EDUCATION**

MS (Electrical Engineering) , University of Texas at Tyler, TX ( December, 2016)

**Electrical Subjects taken:** Computer Aided Power system Analysis, Optical Fiber communication, Advanced topics in EE (MIPS programming language), Scientific computing (Python, C, C++), Pattern recognition, Advanced Math for Engineers, Pattern Recognition, Fundamentals of Modeling and Distribution simulations, Data analytics

**Electronics and Communication courses taken**: Optical fiber networks, Wireless networks, Electronic devices and circuits, Digital communications, Digital Image processing, RF Engineering, Satellite communication, Transmission lines and Waveguides, Microprocessor and micro controllers, Microwave Engineering, Linear Integrated Circuits, Computer Architecture, Antenna and Wave propagation

**PROFESSIONAL EXPERIENCE**

**Graduate Assistant, UT Tyler, 2015-Current.**

* Helping the freshman with transition from school to college.
* Chartered a freshman field day
* Engineered ideas for starting an orientation camp
* Assisting parents with their queries, both online and in person
* Providing Assistance in training the Orientation leaders and Orientation student coordinators
* Assumed leadership roles for several small events within the department.
* Designing online feedback forms using qualtrics, developed posters using Photoshop, illustrator and publisher for events conductor within and outside of the department

**Software/Marketing Engineer -** Star dot star Pvt.Ltd, Tamil Nadu, India, 2013-2014

* Coordinated the manager with the development design of a software that sends bulk messaging for advertisement purposes
* Negotiated with clients and secured contracts to promote the said Bulk Messaging software.
* Interned for the project manager as a marketing executive and took care of the client database.
* Managed online clientele, technical support for the software and book keeping

**Professional communication and Technical trainer,** Indian Institute of Hardware Technology, Tamil Nadu, India, 2014.

* Fostered incoming students in professional communication.
* Taught English speaking, interview training and soft skills.
* Trained students in networking and server management.

**Research Projects:**

**“Analyzing RLC Circuit using MESH ANALYSIS in Python”, UT Tyler, 2015.**

This project demonstrates the analysis of the given RLC circuit using the mesh analysis and the equations are obtained. These mesh equations are written and represented in the matrix form in terms of voltage and mesh currents and these are solved by using C++ programming using the LAPACK library. By using this results from the code, graphs are plotted using GNUPLOT for various angular frequencies. These graphs are plotted for magnitude and phase angles of both voltage and currents with respect to angular frequency.

**“QR Decomposition and SVD of given matrix using LAPACK subroutines”, UT Tyler, 2015.**

A Time varying function is obtained using the LAPACK subroutines from the equations given. These equations are solved by using the QR decomposition and the SVD decomposition. C++ code will be executed that will give us plots for the decomposed equation. The solution for the additive random noise effects was also found

**“Differential Equations using ODE-PACK (FORTRON) on a RLC Circuits”, UT Tyler, 2015.**

In this project, solved diﬀerential equations with the help of ODE-PACK, which is a FORTRAN function for solvers for ordinary diﬀerential equation (ODE) systems. Solved the given diﬀerential equations with their initial conditions and plotted the respective outputs and the parallel RLC circuit

**“Image rendering by converting matrices using OpenCV and Python”, UT Tyler, 2015**

The Eigen vectors of two identical 5\*5 matrices were and the result obtained is compared through the matrix multiplication routine. In this, scorpion machine was used as a platform for open cv and using this, we read the mat lab inbuilt cameraman image and generated values in a two dimensional array and also calculated SVD Decomposition and generated the values in two dimensional array same as camera man image calculations.

**“Digital Image Steganography for secure communication over the internet” – Anna University, 2013.**

Steganography is the science that involves communicating secret data in an appropriate multimedia carrier, e.g., image, audio, and video files. It comes under the assumption that if the feature is visible, the point of attack is evident, thus the goal here is always to conceal the very existence of the embedded data. As a part of the Final project, we manipulated a document to be hidden in an image and coded it using MATLAB and C++ to show that steganography is secure in its communication form.

**“Speaker change identification” – Alpha college of Engineering, 2012.**

Presented a paper in a seminar on the topic of identification and problems of real time Speaker change.

**MANAGEMENT AND LEADERSHIP PROJECTS:**

**ENACTUS- 2003-2013:**

**MUSHROOM CULTIVATION FOR UNEMPLOYED WOMEN, PAAKAM, INDIA.**

As the president of the social entrepreneurial organization, helped the unemployed women start their own mushroom cultivation business with less investment but more returns. As a team, we taught them Book keeping, financial literacy, price negotiation and farming. This has been successfully running for 4 years through out under graduate and now the women team has disbanded to start their own spate businesses.

**ORGANIC FARMING FOR THE UNEMPLOYED, THIRUVALLUR, INDIA:**

The Enactus team also helped farmers in Thiruvallur District in Tamil Nadu start an alternate means of farming to help them get more profit. Organic farming was easy to teach, as the resources we needed were already there in the area. We made a compost pit out of bio degradable items and started using them as fertilizers. The output of this idea was healthier and better quality fruits and vegetables which had very less chemical fertilizers in them. The farmers were able to get a substantial profit with this venture.

**FINANCIAL LITERACY FOR WOMEN, THIRUVALLUR, INDIA.**

In addition to organic farming, we also taught the women in the district about Financial literacy,, topics include opening a bank account, depositing money through an atm, How to start a savings account, operating an atm, how to take a loan etc., By the end of the project, 20 women opened a bank account and are using ATM proficiently.

**ENACTUS UTTYLER 2015-2016**

**HELPING SYRIAN REFUGEES WITH DONATION:**

The Enactus UT Tyler partnered with the Muslim Student Association to collect funds, clothes, food items for the Syrian refugees. By the end of the Collection drive, made upto 4000$ and packed several boxes of perishable and non-perishable items to send to those in need.