Mayur Nilkanth Talole

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Objective:

Seeking a challenging, dynamic full time position in the field of Software Development and Computer Engineering.

Education:

Master of Science (M.S.) in Computer Engineering May'17

The University of Texas at Dallas, Texas, USA - GPA: **3.573 / 4**

B. Tech. Electronics Engineering with Honors in Signal Processing and Communication Engineering, June'15

VIT (Savitribai Phule Pune University), Pune, India - CGPA: **8.64 / 10**

Work Experience:

Project Trainee at Tata Motors Ltd., India Summer'14

- Modelled and developed Exhaust Gas Recirculation control strategies for Bharat Stage III pollution platform.
- Initially implemented Learning techniques on pre-stored data from database in Java and C later on Embedded Platform for decision making on EGR valve in ECU of vehicles, implemented in Simulink and demonstrated test rig of ECU of vehicle.

Research work/ Publications:

- Chief engineer and developer in controls for **UTD Hyperloop Team** for Pod Design Competition by **SpaceX**.
- Worked for **MIT India Smart Toilet Initiative** presented in **ReDx 2015** camp by IIT Bombay and Massachusetts Institute of Technology, USA and developed a code for robot sampling and advance disease detection from faeces.
- "**Safety using Road Automated Wireless Communicating Smart Helmet Application (SURACSHA)** ", International Journal of Engineering Research & Technology (IJERT), Vol. 3 - Issue 9 (September 2014).

Proficiency and Skills:

Programming : C, Java, J2EE, JSP, Servlets, HTML5, CSS3, JavaScript, JQuery, MySQL, Gem5, Assembly, python, MATLAB, Maven.

Tools : $LaTeX$, MS office, Eclipse IDE, GitHub, Netbeans, Adobe Photoshop, AVR Studio, MPLAB IDE, IRSIM, Keil uVision, Amazon AWS, Lab view, Simulink, Code composer, Android Studio, Visual Studio.

Operating Systems : MS Windows, Linux (Ubuntu).

Projects undertaken and extra-curricular activities:

Experimental analysis of Mutual Exclusion algorithms in a distributed system. Summer'16

Implemented and compared mutual exclusion algorithms – Lamport and Roucairol-Carvalho algorithms in system containing multiple virtual machines using Java. Compared respective results in message complexity, response time and system throughput.

Snapshot Protocol Implementation in Distributed System Summer'16

Implemented Chandy and Lamport's Protocol for recording a consistent global snapshot of system of multiple machines given in configuration file. The snapshot protocol is used to detect termination of MAP protocol of distributed systems in JAVA.

A user friendly Airline Reservation System Spring'16

Developed a reservation system GUI for a user using MySQL as database and Netbeans as front end IDE.

Universal tracking app for public transportation Spring'16

Developing an Android app and java based application along with Amazon AWS for tracking all public transportation. DynamoDB is used for storing the current GPS based location of user and based on the network of all buses real time suggestions will be given.

Multi-function Multi-Platform Secure Chat application Spring'16

Developed a chat application for cellphone and pcs which employs multi-clients communication system on Java with GUI and hosted on Amazon AWS instance.

IoT based Solar tracking panel mechanism and personal assistant system Fall'15

Designed algorithm for controlling orientation of panel as per the position of sun consists of TIVA ARM Cortex along with and CC3100 Wi-Fi module to get weather data and data processing generates user notification. Web based local troubleshooter for manual control was created. Multiple features such as network report generation, emergency assistance were incorporated later.

LetpicEnhance Learning to estimate transient parameters in computational digital photography for image enhancement.
Developed a system to determine camera parameters to capture a perfect image of fast moving object using learning techniques in MATLAB and in the thesis proposed the concept of camera behavioral entity.

Worked as **Team Lead** and programmer for **Team VIT Robocon** secured first Runners Up position in ROBOCON India'13.