

Vishal Vishal | Curriculum Vitae

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Profile Summary

- Total 5.2 years of experience in software development using **C**, **C++**, **Java** and **Python**.
- Experience in developing systems using OOP/OOAD and Design Patterns.
- Experience in developing critical pre-analytical medical systems.
- Experienced with tools like **Git**, **SVN**, **Jenkins**, **JIRA**.
- Experienced with working in **AGILE** scrum based environment.
- Experience with Natural Language Techniques using NLTK, Word2Vec, LSA, LSI, POS etc.
- Strong Analytical, Interpersonal, Troubleshooting and Communication Skills.
- Fluent in English, strategic thinker, self-starter and an excellent team-player;

Education

	Masters of Science
<i>Distributed Software Systems, Technical University Darmstadt, Darmstadt(Germany)</i>	<i>2013–2015</i>
	Bachelor of Technology
<i>Computer Science and Engineering, Kurukshetra University, Kurukshetra(India)</i>	<i>2005–2009</i>

Masters Thesis

Title: Storytelling : *Finding the coherence between large set of documents*

Description: This thesis explored the domain of **Text Mining** and **Natural Language Processing** to find the most coherent news articles from a large set of NewYork Times corpus. Implementation of this thesis is done in **python**. Apache **Solr** server is setup and queried for accessing the dataset. Packages used : **Python**(nltk, math, os, string, numpy, pulp, time, pysolr, urllib2, json, sklearn, scipy)

Technical Skills

Programming Languages :	C, C++(with STL and Boost), Java, Python
Tools:	Jenkins, Jira, Git, GDB, CANUtils
OS Platforms:	Linux, QNX
Automation Framework:	Sikuli, Robotium, Appium
IDEs:	Visual Studio, Eclipse, QT
Protocols:	TCP/IP, CAN, RS232, RS485

Experience

Roche	Stuttgart
<i>Software Developer(Embedded)</i>	<i>Jan-2016–Present</i>

- Development of realtime framework for developing medical devices softwares.
- Development of drivers for Motion control boards based on CANOpen.
- Development of pre-analytical medical devices (using motors , motion sensors and actuators)
- Languages used C, C++(with STL and Boost) and python(for prototyping).

Fraunhofer SIT

Darmstadt

Junior Researcher(Student)

Aug-2015–Oct-2016

- Exploring the area of software obfuscation specifically for Java, JavaScript and python.
- Implementation of new obfuscator(**Java**) by combining existing obfuscators and their performance evaluation.

Deutsche Telekom

Darmstadt

Software Test Engineer(Student)

Aug-2014–Aug 2015

- Indulge in development of Model based (using PyModel) test suit framework for mobile hand-held devices like e-reader, tablets and mobile phones using **Sikuli** framework.
- Writing test cases using **Roboium** and **Appium** interface.
- Indulge in manual testing and reporting bugs on **RedMine** for android application and e-reader devices

Technical University Darmstadt

Darmstadt

Junior Research Assistant(Student)

Aug-2014–Aug 2015

- Understanding and application of supervised and unsupervised learning techniques using semantic analysis to develop an algorithm for finding a coherent set of documents.
- Defining the clustering technique for initial filtering of documents from a large corpus(New YorkTimes data-set).
- Implementing existing approaches and real user evaluation.
- Enhancement of existing algorithm using **NLP** techniques.
- Understanding the Hadoop ecosystem and setting up **Hadoop** clusters for distributed processing and generating **Map Reduce** task for students.

Samsung

Bangalore (India)

Lead Engineer

Aug-2012–Sep2013

- Real Time WiFi Traffic Generator
 - Understanding and identifying the various traffic modelling parameters for different type of traffic.
 - Involved in research and scope estimation of the project.
 - Responsible for parsing algorithm development for raw packets flowing on the networks in **C** and **Java**
 - Responsible for network level communication algorithm for different traffic using sockets library
 - Implementing the different traffic models for different parameter.
 - Unit and functional testing of the modules.
 - Languages used : C, C++
- Test tool development for SIPC conformance
 - Understanding the API to interacting with application processor and the communication processor.
 - Understanding proprietary protocols for Samsung inter-process communication.
 - Scripting test cases using **JUnit**.

Sasken Telecommunication Pvt. Ltd.

Bangalore (India)

Software Engineer

Mar-2010–Aug-2012

- Windows Multimedia (Video)
 - To perform the unit testing for the fixes.
 - To perform the real time debugging using windows debugger and analysing the logs and finding the root cause for the issue.
 - Development and integration of algorithms to improve the decode times for frames(MPEG-4,H264) in **C++**.
 - Handled issues in video decoder module in windows Media Foundation framework using **C++**.
- Audio DSP subsystem on mobile platform - Sustenance and Maintenance
 - Performing Root Cause Analysis (RCA) by analysing the logs obtained during real time use case and fixing the errors raised by various teams during different stages of **SDLC**.
 - Responsible for fixing issues in Audio-Data(amr,mp3,3gp) Processing module in DSP application software written in **C**.
 - Involved test automation using Nokia testing tool ATS3 and AT Commands.
 - Responsible for writing automation scripts in **python** of Nokia head phones.
 - Involved in **Agile** methodology (**Scrum**).
 - Involved in documentation of the call flow and design requirements of automated test tools

Languages

Hindi: Mother tongue

English: Fluent

Fluent

Deutsch: Basic

A2

Awards and Presentations

2011: Best Employee award of the quarter

2014: Paper presentation at GI Informatik Tag at HPI, Postdam, Germany

Extracurricular Activities

2014-15: President : Darmstadt Indian Association, Darmstadt, Germany

2015-16: Member of advisory committee, Darmstadt Indian Association, Darmstadt, Germany