

# Vishal Vishal | Curriculum Vitae

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## Profile Summary

- Total 4 years of experience in software development using C, C++, Java and Python.
- 1.5 years work experience as a research assistant for developing tool using natural language text processing in Java and Python.
- 1 year work experience as test automation engineer at Deutsche Telekom using a Appium and Robotium.
- Experience with Natural Language Techniques using NLTK, Word2Vec, LSA, LSI, POS etc.
- Experienced user of project management tools like Redmine and GitHub,
- Experienced with version control management systems like Git, SVN, Synergy.
- Working knowledge of Hadoop ecosystem( HDFS, MapReduce, Hive, MapReduce, HBase).
- Strong Analytical, Interpersonal, Troubleshooting and Communication Skills.
- Fluent in English, strategic thinker, self-starter and an excellent team-player;

## Education

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|---|-------------------------------|
|   | <b>Masters of Science</b>     |
| <i>Distributed Software Systems, Technical University Darmstadt, Darmstadt(Germany)</i> | <i>2013–2015</i>              |
|   | <b>Bachelor of Technology</b> |
| <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 **R** and **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*)

**R**(*bibmemory, tm, tmcn, ggplot*)

## Technical Skills

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|--------------------------------|---|
| <b>Programming Languages :</b> | C, C++, Java, Python, R, SQL              |
| <b>Technology:</b>             | NLP, Hadoop MapReduce, HBase, Hive, HBase |
| <b>OS Platforms:</b>           | Linux, Android, Microsoft Windows         |
| <b>Automation Framework:</b>   | Sikuli, Robotium, Appium                  |
| <b>IDEs:</b>                   | Visual Studio, Eclipse, RStudio           |

## Experience

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### **Fraunhofer SIT**

*Junior Researcher(Student)*

**Darmstadt**

*Aug-2015–Present*

- 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**

*Software Test Engineer(Student)*

**Darmstadt**

*Aug-2014–Aug 2015*

- Indulge in development of Model based 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**

*Junior Research Assistant(Student)*

**Darmstadt**

*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**

*Lead Engineer*

**Bangalore (India)**

*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
- Test tool development for SIPC conformance
  - Understanding the API to interacting with application processor an the communication processor.
  - Understanding proprietary protocols for Samsung inter-process communication.
  - Scripting test cases using **JUnit**.

### **Sasken Telecommunication Pvt. Ltd.**

*Software Engineer*

**Bangalore (India)**

*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

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**Hindi:** Mother tongue

**English:** Fluent

*Fluent*

**Deutsch:** Basic

*Aquiring Level A2*

## Awards and Presentations

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**2011:** Best Employee award of the quarter

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

## Extracurricular Activities

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

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