

# Suman Saurabh

 ssumansaurabh •  sumansaurabh

## Education

Year	Degree/Certificate	Institute/School	CGPA
2015	B. Tech, Computer Science and Engineering	LNM Institute of Information Technology, Jaipur	7.2/10
2010	Class XII (ICSE)	Mount Assisi School, Bhagalpur	76.67%
2010	Class X (ICSE)	Mount Assisi School, Bhagalpur	86.1%

## Achievements

- Selected for **Google Summer Code- 2014** from among **4,420** candidate across the world.
- Won **2nd** Prize in hardware contest 'STRIVE 'at **IIT Kanpur**, TECHKRITI- 2014 on project AVATAR.
- Secured **1st** position in Inter College Chess Tournament at **IIT Jodhpur** sports fest - VARCHAS- 2013.
- Awarded **1st** prize in District Science Exhibition in **10th** for Computer Science project on Video Editing.

## Summer Internship

- **Speech to Text Enhancement Engine, Stanbol** **May - August, 2014**
  - *Open-Source Developer, Google Summer Code* *Apache Software Foundation(ASF)*
  - Stanbol is an ASF project that provides **Semantic** services to **Content Management System(CMS)**.
  - Synthesized an **OSGi** module for semantic enhancement of the extracted text on a parsed audio encoded media file using **CMU Sphinx** libraries.
  - Gained the **experience** of talking to **people** from different **countries** and culture on **open-source** development environment and acquired set of **skills** on tools like **Maven**, **OSGi**, **JUnit** and **SVN**.
  - Practical Applications:** Tag extraction from media file such as from videos in CMS system like blogs.
- 
- **Probabilistic Representation and Recognition of Historical Text** **May - July, 2013**
  - *Digital Image Processing* *IIIT Hyderabad*
  - Optimizing** the traditional recognition technique of historical text used in **Scene Text Recognition**.
  - Formulated an algorithm which consumes **OpenCV** libraries of C++ to get word image, train them by **SVM** using its Bag of Words feature set and predict results on the corresponding n-gram model.
  - Accomplished **efficiency** of **77%** on the experimental data and identified reasons for the disagreement.

## Projects

- B. Tech Project.....
- **Analysis of Agricultural Data using MapReduce technique in Hadoop** **Current**
  - *Mentor: Dr. Ravi Prakash Gorthi* *B. Tech Project*
  - To develop smart **agriculture** system by analysing **raw** agricultural data to predict the viable needs for increasing agricultural productivity.
  - Currently analyzed the basic implementation of **MapReduce** techniques used in **Hadoop**.
- Independent Projects.....
- **AVATAR - Assistive Technology for Underprivileged people** **January - March, 2014**
  - Engineered a device **Avatar** - goggle that helps **hand disabled** people to **interact** with their computer.
  - Designed **driver** in Java for **tracking head** from Camera and **simulating** track feed on **Mouse Cursor**.
  - Devised technique **costs** approximately **12\$** and is significantly **cheaper** and **better** than their counterparts.

### - AngelList Job Extractor

August, 2014

- o Coded a **web application** in **Google App Engine- Python** framework for getting jobs list using AngelList api's. Keyword and location tags stored in Google's **NoSQL** database are used to fetch the job details.

### Academic Projects.....

### - Knowledge Base Compiler

June - July, 2014

#### - Artificial Intelligence

- o Developed **Rule Based Engine** in JAVA that performs simple **lexical analysis** on rules, parses them for facts and perform deduction using **Forward or Backward Chaining** inference engine.

---

### - Student Grading Portal

April - May, 2014

#### - Software Engineering and Project Management

- o Automated a web based **grade book** in PHP and MySQL by adding **features** like calculating relative grades and indexing the performance in **Flash Graphs**, it utilizes **Open Flash Chart** libraries.
- o Tailored the software system on **MVC** class pattern to make the software model efficient and sustainable.

---

### - Two Pass Assembler

November, 2012

#### - Computer Organization and Architecture

- o Formulated **Instruction Set Architecture (ISA)** for a 16 bit machine in C and built a Two Pass Assembler for it. First Pass generates symbol table, Second Pass converts symbol into corresponding binary.

## Positions of Responsibility

### Coordinator

2013 - 2014

#### Events and Festival Organizing Committee, LNMIIT

- o Organized **Matki- Fod** in Janmasthmi with a participation of approximately **320** students for the event.
- o Launched "**Padhega India Tabhi to Badhega India**" campaign by providing local children of near by village with **Book, Copy, Pen and Sweets** on the eve of Diwali and Holi.

## Electives Undertaken

Number System | Data Mining | Machine Learning | Artificial Intelligence | Digital Image Processing | Robotics and Industrial Automation | Data Science and Statistics (Udacity)

## Skills

Language:	C   C++   Java   Python   R(Basic)   PHP   HTML5   CSS   L <sup>A</sup> T <sub>E</sub> X
Platform:	Eclipse   NetBeans
Database:	MySQL   NoSQL
OS Environment:	Linux   Windows
Ecosystem:	Hadoop   Stanbol
Project Development:	Maven   Revision Control System(GIT, SVN)   OSGi   JUnit

## Extra Curricular Activities

Hobbies:	Chess   Football
Chess Club:	<b>Coached</b> juniors to be a proficient chess players.
Teaching Assistant:	<b>Assisted</b> 60 freshman students in their C programming Lab.
Organization:	Active member of <b>ACM</b> and <b>CSI</b> India.