



Sumeet Ranka

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Degree	University/Institute	CPI/Percentage	Year
B. Tech - Computer Science and Engineering	Indian Institute of Technology Guwahati	8.86/10	2013 - 2017
Senior Secondary	Shivaji Science College, Nagpur	92.83	March, 2013
Secondary	Bhartiya Vidya Mandir, Civil Lines, Nagpur	10/10	March, 2011

EXPERIENCES

Software Engineer (Research) at Samsung Research Institute - Bangalore

JUNE 2017 – Present

Division: Intelligence and IoT

Main objective is to come with innovative features for Samsung's smart devices that can make life more secure and comfortable for users. It involves analysis of usage data, understanding input constraints and studying current research trend in smart home environment domain.

Summer Intern at 'Flipkart India Pvt. Ltd.'

MAY – JULY 2016

Title: Tiered Data Store - Automation Testing Module

Mentor: Mr. Sumit Pilankar, Engineering Manager

Tools Used: Apache JMeter

TDS is a hierarchical data store that uses Vitess and HBase to store data.

- Developed **Functional and Performance Testing** modules for the database architecture.
- Identified bottlenecks and limitations in the TDS architecture.
- Modularised to configure and develop new testing modules easily.

PROJECTS

STUDY OF COEXISTENCE OF LTE-U and IEEE 802.11n

Bachelor Thesis Project

Prof. Sukumar Nandi, Dept. of CSE, IIT Guwahati

1. Analyze the feasibility of seamless-handoff between the two networks using Integrated Switching Network
2. Identify the drawbacks and bottlenecks in the currently proposed architecture (LTE-U/LAA) for coexistence

Tools Used: Network Simulator 3

IMAGE CLASSIFICATION USING SPATIAL TRANSFORMER NETWORKS

SEPT - NOV 2016

Prof. Arijit Sur, Dept. of CSE, IIT Guwahati

Implementing spatial transformer networks (introduced in Google DeepMind) in convolutional and recurrent neural networks for classification of MNIST handwritten character data set.

Tools Used: Tensorflow

ASSISTIVE DEVICE FOR HAND AMPUTEES

OCT - NOV 2015

Prof. S. B. Nair, Dept. of CSE, IIT Guwahati

Device to support people who have their arms amputated above or below the elbow. Provides two major support:

1. Enable the user to use a computer by acting as a convenient interface for keyboard and mouse.
2. Enable the user to transport heavy objects by having a transport robot that they can control.

Contribution: Developed transport mode and the bot to transport objects.

Tools Used: Arduino, Python

TEXT READABILITY ANALYSIS USING LANGUAGE MODELS

FEB-APR 2017

Prof. Ashish Anand, Dept. of CSE, IIT Guwahati

Developed an unsupervised approach for predicting text readability scores. Implemented deep-learning and statistical models for comparing results with vocabulary-based and syntactic approaches.

PLEXUS

MAR 2015 - JAN 2017

Dean of Alumni and External Relations, IIT Guwahati

Social media platform to bring together the whole IITG community.

Contribution: Figuring out the database design and relationships among the tables. Implemented features like search directory, pagination, recent campus and alumni chapters' activities and frontend design.

Tools Used: Django

ACHIEVEMENTS & TALKS

- Invitee as Session Speaker at IIT (BHU) Varanasi in **QIP-STC 2017** themed on "*Machine Learning: Trends, Perspectives & Prospects*"
 - Ranked 11 in **Microsoft – Build the Shield 2015**, a team based event on Software and Network Security
 - Qualified for the Onsite **ACM-ICPC (Amritapuri) – 2014 (India)**, a competitive programming contest
 - Represented IIT Guwahati in **Inter IIT Workshop on Alumni Relations & Fundraising**
 - Delivered talks on various topics (*IITG Network Architecture, Introduction to Programming, Object Oriented Programming Structure*) as UG student in IITG
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TECHNICAL PROFICIENCY

- Languages: C/C++, Python, Scala, Javascript, Visual Basic (Basic)
 - BigData Tools: Hadoop, Apache-Spark
 - Frameworks: Django
 - Operating Systems: GNU/Linux, Windows
 - Tools and IDE : Apache JMeter, Visual Studio (Basic), Eclipse
 - Miscellaneous: MySQL, Git, L^AT_EX
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COURSES TAKEN

Computer Science: Data Structure[#], Algorithms, Formal Languages, Theory of Computation, Operating Systems[#], Compilers[#], Databases[#], Networks[#], Computer Graphics[#], Digital Design, Computer Organisation & Architecture, Software Engineering[#]

Math: Probability Theory and Random Processes, Optimization

Artificial Intelligence: Artificial Intelligence, Computer Vision using Machine Learning, Information Retrieval[#], Intelligent Systems & Interfaces

Miscellaneous: Parallel Computing[#], Internet Protocols

- Accompanied with Lab Courses

POSITIONS OF RESPONSIBILITY

Peer Mentor

AUG 2015- APR 2016

Counselling Cell, IIT Guwahati

Mentored 8 first-year students regarding every aspect of the academic and hostel life that they will be experiencing. The main objective was to help them in easy transition to college life and cope up with a new atmosphere.

Team Leader

JAN - APR 2015

Prof. P. K. Das, IIT Guwahati

Worked on three different projects (**Form Validation Library, Course Management Portal with Excel as BackEnd, Vehicle Management and Security**) along with different teams using Visual Basic, Visual C++ and Django respectively. Database design, integration and debugging were the important tasks.

Core Team Member

NOV - SEPT 2014

Technothon - IIT Guwahati

Organized an inter-school contest in 23 districts for 5000 students. Found national media partner (Dainik Bhaskar). Designed and organized a game named 'Battle of Hogwarts'.

(References available on request)
