

Rahul R Huilgol

 <http://rahuloo3.github.io>

Prefinal Year Undergraduate Student
Department of Computer Science and Engineering
Indian Institute of Technology Guwahati, India

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Education

Indian Institute of Technology Guwahati

Bachelor of Technology, **Computer Science and Engineering**
Cumulative Performance Index (CPI) – **8.45** (after 4 semesters)
Semester Performance Index (SPI) – Most Recent – **8.62**

Guwahati, India

2011 – Present

Sri Chaitanya Junior College

Board of Intermediate Education - Andhra Pradesh
Aggregate – **96.1%**

Hyderabad, India

2009 – 2011

Sanghamitra School

Central Board of Secondary Education (CBSE)
Aggregate – **94.4%**

Hyderabad, India

– 2009

Projects

[More Details and other Projects on my Website](#)

Relationships between features of Network Traffic Data using CCA

Advisor: Dr. Vijaya Saradhi, Assistant Professor, Dept. of CSE, IIT Guwahati

Ongoing research project

By representing network traffic data in different ways and maximizing correlation between these representations (using Canonical Correlation Analysis), we are trying to establish relationships between various features of the data.

Tweet Categorization

Independent project

Developed a system to classify tweets into categories using the principles of a Bayesian Classifier. This when used for the contest Twitminer (organized by IISc Bangalore) gave an accuracy of over 90% and was ranked 26th in India.

Handwritten Digit Recognizer

Independent project

Developed a system to recognize handwritten digits using knn-algorithm.

Sentiment Analysis on Movie Reviews

Independent project

Currently working on a system, using NLP and ML techniques, to mine the sentiment of tweets on a newly released movie

Enhancing the kernel of Pintos

C++

Advisor: Dr. Sajith Gopalan, Associate Professor, Dept. of CSE, IIT Guwahati

Augmenting the basic [Pintos](#) kernel (developed at Stanford) by adding various advanced OS constructs like Process Synchronisation primitives, schemes to run programs in user and kernel mode, file system management and virtual memory with demand paging etc.

SyncBox - A file hosting and file synchronization service

Advisor: Dr. Pradip K. Das, Associate Professor, Dept. of CSE, IIT Guwahati

Led a group of 19 to develop a feature-rich file hosting service which supports automatic 2 way synchronization of files across various computers (Linux) similar to [Dropbox](#). It involved use of Django framework(Python), SSH and few linux utilities.

2 Pass Assembler Linker Loader for 8085

Python

Advisor: Dr. Santosh Biswas, Assistant Professor, Dept. of CSE, IIT Guwahati

Developed a 2 pass 8085 assembler, linker and loader. Supports various new instructions (not in 8085 instruction set), looping capability, macros and error detection which are converted to the 8085 assembly language accepted by [GNUsim8085](#).

A Human v/s Computer Game

Java

Advisor: Dr. Saswata Shannigrahi, Assistant Professor, Dept. of CSE, IIT Guwahati

Developed a fully functional implementation of the ancient board game [Kalaha](#). Uses techniques of Artificial Intelligence like Minimax and Alpha-Beta pruning.

More details and other projects can be seen on my [Website](#)

Workshop

Mining Big Data on the Web (by Microsoft at IIT Guwahati): Workshop covered topics like Information Retrieval, Web Mining, Web Search, Recommender Systems, Query Log Mining, Crowdsourcing, Crawlers, etc.

Technical Skills

Programming Languages	C, C++, Java, Python, UNIX Shell Scripting
Web Development	HTML, CSS, PHP, MySQL
Operating Systems	Linux, Microsoft Windows
Softwares & IDE	Visual Studio, Eclipse, Microsoft Office, LaTeX
Frameworks/Libraries	Scikit-learn, Weka, Twitter Bootstrap
Version Control	Git

Research Interests

Machine Learning	Natural Language Processing	Information Retrieval
Data Mining	Data Management	Operating Systems

Major Academic Achievements

- Among **top 0.2%** in **IIT-JEE** 2011 (*Entrance examination for Indian Institutes of Technology*) out of half million participants across India
- Among **top 0.2%** in **AIEEE** 2011 out of 1 million participants across India
- Stood **73** in **KCET** 2011 (*Engineering entrance examination for state of Karnataka*)
- Secured **3 National Merit Certificates** in Science, Maths & English from the **CBSE** for being in the top **0.1%** performers among more than 630,000 students in CBSE 2009 Board Exams

Relevant Courses

Courses in italics will have finished by April 2014

Theoretical: Introduction to Computing, Discrete Math, Data Structures, Algorithms, Formal languages and automata theory, *Theory of Computation*

Systems: Digital Design, Computer Organization and Architecture, *Operating Systems, Compilers*

Math: Linear Algebra, Real and Complex Analysis, Multivariable Calculus, *Probability, Optimization*

Others: Software Engineering, Modern Biology, *Data Communication, Networks,*

Online: *Learning from Data (Caltech), Machine Learning (Stanford), Web Intelligence & Big Data(IITD)*

Labs: *Peripherals, Databases, Compilers, Networks, System Software, Software Engineering, Systems Programming, Hardware*

Positions of Responsibility and Extra Curricular Activities

- **Batch Representative** of CSE 2015 Batch
- **Student Representative** (Third Year) in Department Undergraduate Planning Committee
- **Literary Secretary** of Dihing Hostel, IIT Guwahati for the year 2012 – 2013
- **Head Boy** of Sanghamitra School during the academic year 2008 – 2009
- Core Team Member and Event Organizer of IITG Entrepreneurial Summit 2013
- Enthusiastic participant in hackathons, workshops, lectures and coding contests conducted by Coding Club and Google Developers Group, IIT Guwahati