Rahul R Huilgol

http://rahul003.github.io

Prefinal Year Undergraduate Student
Department of Computer Science and Engineering
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Education

Indian Institute of Technology Guwahati   Guwahati, India
Bachelor of Technology, **Computer Science and Engineering**   2011 – Present
Cumulative Performance Index (CPI) – **8.45** (after 4 semesters)
Semester Performance Index (SPI) – Most Recent – **8.62**

Sri Chaitanya Junior College   Hyderabad, India
Board of Intermediate Education - Andhra Pradesh   2009 – 2011
Aggregate – **96.1%**

Sanghamitra School   Hyderabad, India
Central Board of Secondary Education (CBSE)   – 2009
Aggregate – **94.4%**

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, Mutivariable 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