RAHUL R HUILGOL

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DoB: 3rd October 1993

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EDUCATION

Institute Indian Institute of Technology Guwahati Guwahati, India

Degree Bachelor of Technology, Computer Science and Engineering 2011 – Present

CPI **8.45** (after 4 semesters) on a scale of 10

SPI Most Recent – 8.62

Institute Sri Chaitanya Junior Kalasala [Board: BIE-AP] Hyderabad, India Percentage 96.1% 2009 – 2011

Institute Sanghamitra School [Board: CBSE] Hyderabad, India
Percentage 94.4% - 2009

MAJOR PROJECTS

LINK TO PROJECTS ON MY WEBSITE

TITLE Machine Learning using CCA on Network Traffic Data Status: Ongoing

Guide Dr. Vijaya Saradhi, IIT Guwahati

NATURE Summer Research Project

Details 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. Ultimately we

hope to use these relationships to establish patterns in the data.

TITLE A Human v/s Computer Game

Java

Guide Dr. Saswata Shannigrahi, IIT Guwahati

DETAILS Developed a fully functional (difficult to beat) implementation of the ancient board

game Kalaha. This gave me insights into basic Artificial Intelligence (Specifically,

Minimax and Alpha-Beta pruning).

TITLE 2 Pass Assembler Linker Loader for 8085

Python

Guide Dr. Santosh Biswas, IIT Guwahati

Details Developed a 2 pass 8085 assembler, linker and loader. It supports various new

instructions (not in 8085 instruction set), looping capability and macros, which are converted to the 8085 assembly language accepted by GNUSim8085. It also detects

various kinds of errors in syntax and semantics.

Title SyncBox - A file hosting and file synchronization service

Guide Dr. P.K. Das, IIT Guwahati

Details Led a group of 19 to develop a file hosting service which supports automatic 2 way

synchronization of files across various computers (Linux) similar to Dropbox. It also supports features like a fully featured web based file browser, sharing of files uploaded (via email or private messaging on the website) and groups. It involved

use of Django framework(Python), SSH and few linux utilities.

TITLE A Virtual Bread Board Simulator

Java

Guides Dr. Santosh Biswas & Dr. Arijit Sur, IIT Guwahati

Details Developed a GUI for a Breadboard Simulator proposed to be used for remote sim-

ulation. Features include: Drag and Drop GUI, Error warnings and Resolution,

Converting the circuit into a Matrix Representation for further processing

Classifier Developed a Bayesian Classifier to classify tweets which when implemented in

the contest Twitminer (organised by IISc Bangalore) gave an accuracy

of over 90% and was ranked 26th

Digit Recognizer

Developed a digit recognizer using knn algorithm

Pintos

Enhanced features like scheduling and implemented virtual memory in a

barebones OS, Pintos.

TECHNICAL SKILLS

Programming LanguagesC, C++, Java, Visual Basic .NET, PythonWeb DevelopmentPHP, MySQL, HTML, CSS, Javascript

Operating Systems Linux, Microsoft Windows

Tools & IDE Visual Studio, Eclipse, Microsoft Office, LATEX

Frameworks Django, Twitter Bootstrap

Version Control Git

RESEARCH INTERESTS

Machine Learning Natural Language Processing Sentiment mining

Web Intelligence Cryptography

Major Academic Achievements

- Secured an All India Rank of 1132 (in the top 0.2%) out of 4,90,000 participants in IIT-JEE 2011
- Secured an All India Rank of 2432 (in the top 0.2%) out of 10,60,000 participants in AIEEE 2011
- Stood 73 in KCET 2011 and 310 in EAMCET 2011, Engineering Stream
- Received **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

Courses

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

Systems: Digital Design, Computer Organization and Architecture, *Operating Systems*, *Compilers* **Others**: Software Engineering, *Optimization*, *Data Communication*, *Networks*,

Learning from Data (ML - Online course by Caltech)

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

Courses in italics will have finished by April 2014

Positions of Responsibility

- **Batch Representative** of CSE 2015 Batch 2013 2014
- Student Representative (3rd Year) in Department Undergraduate Planning Committee 2013 2014
- Literary Secretary of Dihing Hostel, IIT Guwahati for the year 2012 2013
- **Head Boy** of Sanghamitra School during the academic year 2008 2009

Extra Curricular Activities

- Member of **SIGACT** (Special Interest Group in Algorithms and Computation Theory), IIT Guwahati
- Enthusiastic participant in hackathons, workshops, lectures and coding contests conducted by Coding Club and Google Developers Group, IIT Guwahati
- Member of the Literary Society and Publication Sub Committee, IIT Guwahati
- Regularly participated in various inter-school quizzing and literary competitions
- Core Team Member and Event Organizer of IITG Entrepreneurial Summit 2013