

# RAHUL GHOSH B.TECH - Electronics and Electrical Engineering Department of Electronics and Electrical Engineering Indian Institute of Technology Guwahati

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Degree	Institute	CGPA	Year
B.Tech	Indian Institute of Technology Guwahati	7.78	2012-2016
Senior Secondary	The Army Public School, Pune	92.6	March, 2011
Secondary	The Army Public School, Pune	93.8	March, 2009

#### **EXPERIENCES**

# PROJECT TRAINEE, INSTITUTE OF DEVELOPMENT AND RESEARCH IN BANKING TECHNOLOGY (ESTD. BY RBI)

MAY'15 – JULY'15

Dr. Vadlamani Ravi, Head of Center of Excellence in CRM and Analytics

Worked as a research intern on the following projects:

- Quantum-Inspired Differential Evolution based Wrapper for Feature Subset Selection
- Design and development of a Quantum-Inspired Differential Evolution optimization algorithm and using it obtain an optimal feature subset of a given dataset on which the learning algorithm can focus and neglect the irrelevant features for smaller run time.
- Classification of Customer Reviews using Deep Learning

Retrieval of customer reviews from Amazon website and their classification using a combination of Restricted Boltzmann Machine (RBM) and Probabilistic Neural Network (PNN) and comparing its result with other classification techniques.

### **PROJECTS**

# GLAND SEGMENTATION AND CLASSIFICATION USING DEEP LEARNING, BACHELOR THESIS PROJECT

AUG'15 - APR,16

Dr. Amit Sethi

• Classification of benign vs grade 3, 4, 5 prostate cancer from images of segmented glands using Restricted Boltzmann Machines and Convolutional Neural Networks using Theano

#### **MACHINE LEARNING COURSE PROJECTS**

OCT'14 - APR'15

Dr. Suresh Sundaram

• Designed projects such as Handwritten Digit Recognition, E-mail Classifier and Face Recognition using techniques such as Neural Networks, Support Vector Machines, Principal Component Analysis, K-means Clustering, and Logistic Regression etc.

WALL CLIMBING ROBOT JAN'15 – APR'15

Dr. Prithwijit Guha

Development of a wall climbing robot with payload capable of climbing any rugged terrain.

CARD PREDICTOR OCT'13

Dr. Amit Sethi

Simulation of a card trick using 8085 Microprocessor and digital electronic components.

#### **PUBLICATIONS**

- "Elitist Quantum-Inspired Differential Evolution based Wrapper for Feature Subset Selection", V. Srikrishna, **Rahul Ghosh**, V. Ravi and Kalyanmoy Deb, 9th Multi-Disciplinary International Workshop on Artificial Intelligence 2015, Lecture Notes in Artificial Intelligence 9426, 113-124, 2015.
- "A novel deep learning architecture for sentiment classification", **Rahul Ghosh**, Kumar Ravi and V. Ravi, 3rd IEEE International Conference on Recent Advances in Information Technology 2016(accepted).

#### TECHNICAL PROFICIENCY

: C, C++, R, Python, 8051 & 8085 assembly programming **Programming Languages** 

**Operating Systems** : Linux (Ubuntu), Windows, Mac OS

: Neuroshell 2.0, MATLAB, Latex, Multisim, LT Spice Software Packages

Microcontroller kits : Arduino Uno

#### **ACHIEVEMENTS**

- Secured 99.6 percentile and 99.87 percentile in IIT-JEE 2012 and All India Engineering Entrance Exam 2012 respectively
- All India Rank of 534 in the ISAT 2012, for admission in Indian Institute of Space Science and Technology.
- All India Rank 6 in IMMO 2011.
- Special Prize for securing highest marks in Maths and above 90% marks in senior secondary examination.

## **RELEVANT COURSES**

- Introduction to Computing \*\*
- Algorithms and Data Structure
- Parallel Computing
- Pattern Recognition and Machine Learning
- Probability and Random Processes

- Digital Image Processing
- Digital Signal Processing
- Data Scientist Toolbox and R Programming (Coursera)
- Digital Circuits and Microprocessors\*\*
- Embedded Systems and Computer Architecture Mathematics (Linear Algebra, Real Analysis, Multivariable

Calculus, Complex Analysis)

#### POSITIONS OF RESPONSIBILITY

## PLACEMENT CELL, IIT GUWAHATI

DEC'14

Worked as student volunteer and conducted the placement season of IIT Guwahati for the year of 2014.

#### **EXTRA CURRICULARS**

- Won silver medal in Freestyle swimming organized by Rashtriya Life Saving Society (India).
- Winners of Football Premier League (FPL'14), IIT Guwahati.
- Represented hostel Siang in Football in Spardha'13 and won silver medal in Football in Spardha'14, 15 and 16, the annual Intra-college sports festival of IIT Guwahati.
- Selected for Football under NSO (National Sports Organization) from IIT Guwahati.

#### **OTHERS**

#### **EXAM COORDINATOR, TECHNOTHLON (TECHNICHE)**

IUL'12

Conducted Technothlon (international school championship) in Pune, Maharashtra which saw a huge participation.

(References available on request)

<sup>\*\*</sup>both theory and laboratory course