

Abhinav Jain

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EDUCATION

IIT Kharagpur

M.S in Mathematics and Computing

Expected April 2018 | India
Cum. GPA: 7.63 / 10.0

DPS Rohini

Grad. May 2013 | Delhi, India
12th Marks - 95.8%
10th Cum. GPA - 9.8/10

LINKS

Github:// [abhinavjain241](#)

LinkedIn:// [abhinavjain241](#)

Twitter:// [@abhinavjain241](#)

COURSEWORK

Undergraduate

Programming and Data Structures
Design and Analysis of Algorithms
Probability and Statistics
Object Oriented System Design
Information Retrieval
Operating Systems
Intelligent Systems
Data Analytics
Number Theory

SKILLS

Programming

Proficient

C • C++ • Shell • Python

Familiar

• Java • Lua • \LaTeX

EXTRACURRICULAR

Technical

- Actively involved in the Blockchain community
- Governor at University Robotics' Club
- Contributor and developer at University's Wiki

Social

- Working with an NGO to help children with dyslexia in Kolkata

Others

- Guitarist and Governor at Western Music Society

EXPERIENCE

American Express | Intern | Data Science, Machine Learning

May 2017 – July 2017 | Bengaluru, India

- Explored **boosting models** in the context of *online machine learning*
- Implemented a suite of out-of-core algorithms and successfully tested on **2mn** transactions
- Tuned parameters like type and number of weak learners and benchmarked the performance
- Generated ROC plots for models and achieved an AUC of **0.94**, close to the offline version

HEIG-VD | Intern | Robotics, Software Development

May 2016 – July 2016 | Yverdon-les-Bains, Switzerland

- Developed a **communication layer** between multiple robotics development platforms
- Designed 3D simulations for the lab and a domestic robot on **Gazebo** and developed a control interface as a **ROS** package in C++
- Revamped the existing application to encourage sharing of data and resources

Capillary Technologies | Intern | Firmware Development

May 2015 – July 2015 | Bengaluru, India

- Built a lightweight firmware for a wireless identification device using **Lua** and **Bash** scripting
- Designed a basic backend for monitoring data on a regular basis using **AWS** and a very stable IoT protocol (**MQTT**)
- Worked alongside a dedicated team on embedded product development & designed a webpage as a fail-safe for consumers to register & increase engagement

RESEARCH

Intelligent Support System for Dyslexic Students | Masters Dissertation

August 2017 – Present | Prof. Anupam Basu, Communication Empowerment Lab

Working on building an intelligent support system for children with reading disabilities with feedback functionality.

Tag Recommendation for Questions on Quora | Term Project

Jan 2016 – April 2016 | Prof. Pawan Goyal, Information Retrieval

Built a recommendation system to assign relevant tags to questions posted on the Q&A forum website, **Quora**. Implemented **Word Mover's Distance**, to get similar words using pre-trained embeddings. Used the Gensim library in Python and preprocessed the dataset using NLTK toolbox, achieving a high **Recall@5** of **0.7177** on test dataset

Emotion Classification using Neural Networks | Term Project

Jan 2015 – April 2015 | Prof. Sudhir Kumar Barai, Soft Computing Tools in Engineering

An application to recognize emotions from a person's facial expressions using **Haar** features and Gradient Descent model fitting. Extracted features include **Gabor-filtered** images, and auto-generated features from pre-trained networks. Trained an artificial neural network on the **Cohn-Kanade** database of facial expressions achieving a high accuracy of **84.4%**

Swarm Robotics - Decentralized Terrain Exploration | Long Term Project

Feb 2015 – April 2016 | Prof. Pallab Dasgupta, Computer Science & Engg. Dept.

Researched on path planning, motion control, and simultaneous localization and mapping for a swarm of autonomous robots.

ACHIEVEMENTS

2017 Ranked 4th

2014 **INSPIRE**

2014 **Best freshers**

2007 <100

Digimize - National level competition held by Hitachi Consulting

Scholarship awarded by Indian Govt. to exceptional science students

Sudocode, a coding event held at Kshitij, IIT Kharagpur

Olympiad International/National ranks - **4,5,16,46,49,56,67,82**