

Sanjay Thakur

MSc. CS (Thesis), McGill University

PERSONAL DATA

EMAIL: sttsanjay@gmail.com | sanjay.thakur@mail.mcgill.ca
GITHUB: <https://github.com/sanjaythakur>
LINKEDIN: <https://ca.linkedin.com/in/sanjaythakurmnit>
BLOG: <https://sanjaykthakur.wordpress.com/>

EDUCATION

2016-2018(Expected) Masters of Science in COMPUTER SCIENCE, **McGill University**, Montreal
GPA: 3.45/4.0 (upto second term)
2012-2016 Bachelor of Tech. in COMPUTER SCIENCE AND ENGINEERING, **MNIT**, Jaipur
GPA: 7.84/10

INTERSHIPS

MAY-JUNE 2017	Remote Deep Learning Intern at DATA CULTURE INC , SAN FRANCISCO BAY AREA Designed deep architectures that could predict and gain insights in e-retail purchase returns from shopper behavior data, which helped take actions to minimize or even pre-empt the returns.
JUNE-AUG 2016	Software Development Intern at SUPPLY.AI , MUMBAI, India Developed modules that <ol style="list-style-type: none">1. automate the Exploratory Data Analysis of the datasets,2. enhance communication between Apache Spark based units. These modules reduced human efforts made by the company for the next one year.
MAY-AUG 2015	Research Intern at LATECE , UQAM, Canada Profile Link at LATECE . <i>Supervisor: Dr. Naouel Moha</i> Developed tools to detect potential antipatterns during software development and hence led to better software evolution later.
OCT 2015-FEB 2016	Software Development Intern at ANALYZE N CONTROL Developed an android application that invoked certain web-services via SOAP requests to notify stockbrokers with latest notifications by regulators like stock exchanges.

PROJECTS

Railway Maintenance Monitoring System, Supervisor: Dr. Rajesh Kumar, *PUBLISHED PATENT*

1. Made an application for the detection and maintenance of Gears and safety-equipments in the Railway Stations for the Indian Railways in a centralized manner via GPS Integration.
2. Already installed in 3 railway stations. | [Link to the Invention \(Patent Application No. 2407/DEL/2015\)](#)

SmartMeter, Supervisor: Dr. Rajesh Kumar, *PUBLISHED PATENT, 2nd prize at GridTech'15*

Made a prototype that

1. used the concepts of Demand Side Management, and variable tariff blocks,
2. optimized them using principles from Game Theory, and Machine Learning,

3. it reduced the power consumption bill and variability between power supply and demand.

The prototype won 2nd Position in Student Innovation Pavillion at GridTech'15, 5th International Exhibition and Conference, New Delhi. | [Link to published patent \(Application No. 1098/DEL/2014\)](#)

BLAST on GPU, Supervisor: Supervisor : Dr. Emmanuel Pilli, Dr. VCV Rao

Used CUDA to program GPU, to speed up the matching of the DNA sequences with their closest analogues sequence, as described in BLAST (Basic Local Alignment Search Tool) algorithm.

COMPETITIONS

NANo Competition by *Swiftday LLC, USA*
It is a note making android application which is sleek and easy to use.
Won 3rd prize in Android/Web app. development

Ship-E-Trophy Competition at *Neuron'12, MNIT, Jaipur*
Made a manually controlled bot that could carry objects safely on rugged terrains without hitting obstacles to the destination.
Won 1st Prize in the Robotic event.

ACROSS Competition at *Kshitij'13, IIT Kharagpur*
Made two bots that should traverse a grid by assisting one another to pass through gaps without any manual intervention.
Reached the finals of the robotic competition.

COURSEWORK

Reinforcement Learning, Machine Learning, Game Theory, Artificial Intelligence, Concurrent and Parallel Programming, Object Oriented Programming, Operating Systems, Data Structures and Algorithms, Design and Analysis of Algorithms, Databases and SQL.

MISCELLANEOUS

- Gave tutorial on TensorFlow and Git in McGill Innovation's *AI for Social Good* Summer Lab.
- Helped international students in the International Buddy Program at McGill.
- Developed the *website* for Zine. | [Link to the website of Zine.](#)
- Member of Zine, Robotics and Research Group of MNIT. | [Link to the profile in Zine](#)
- Organizer and Lecturer at Annual Zine workshop.
- Won *Hong Kong'15*, the biggest Cricket Competition of MNIT, Jaipur twice consecutively.
- House captain at KV Neemuch.

COMPUTER SKILLS

Programming Languages: Java, Python, C, PHP, Assembly (8085/86), MySQL, SQLite

Scripting Languages: JavaScript, PHP, HTML

Others: Neo4j, CSS, JSP, MPI, OpenMP, PThread, CUDA, OpenCL.