

Sanjay Thakur

MRL/RLLAB/MILA · MASTERS IN COMPUTER SCIENCE, MCGILL UNIVERSITY

MC-105, 3480 University Street, Montreal, QC-H3A2A7

☎ +1-514-398-4400 (Ext.:0664) | ✉ sttsanjay@gmail.com | 🌐 sanjaykthakur.com | 📱 [sanjaythakur](https://www.linkedin.com/in/sanjaythakur)

Education

Masters of Science in Computer Science

RLLAB/MILA, MCGILL UNIVERSITY

- GPA: 3.55/4.

Montreal, Canada

September 2016 - Expected Jan 2019

Bachelor of Technology in Computer Science and Engineering

MALAVIYA NATIONAL INSTITUTE OF TECHNOLOGY

- GPA: 7.84/10.

Jaipur, India

July 2012 - April 2016

Experience in Research/Academia

Research Assistant, MRL/RLLab/MILA

SUPERVISORS:: *Dr. David Meger* AND *Dr. Doina Precup*

- To generate sample-efficient and safe controllers,
- in multiple tasks in Imitation Learning set-up.

Montreal, Canada

May 2017 - Expected January 2019

Machine Learning Research Intern, Borealis AI

REPORTING MANAGER:: *Yevgeniy Vahlis*

- I analyzed the problem of long term dependencies in the sequential modeling problem.

Toronto/Montreal, Canada

June 2018 - October 2018

Teaching Assistant, McGill University

DATABASE SYSTEMS (COMP 421), APPLIED MACHINE LEARNING (COMP 551)

- The tasks involved designing assignments, giving tutorials, and grading the submissions.

Montreal, Canada

Jan.2017-Apr.2017, Sep.2017-Apr.2018

Research Intern at LATECE, UQAM, [Profile Link at LATECE](#)

SUPERVISOR:: *Dr. Naouel Moha*

- Developed tools to detect potential anti-patterns during software development and hence lead to better software evolution later.

Montreal, Canada

May 2015 - August 2015

Publications/Posters/Talks

Sample Efficient Learning From Demonstrations on Multiple Tasks using Bayesian Neural Networks

IMITATION LEARNING AND ITS CHALLENGES IN ROBOTICS, *NeuRIPS 2018*

- Authors::[Sanjay Thakur](#), Herke Van Hoof, Juan Higuera, Kushal Arora, Doina Precup, David Meger

Montreal, Canada

2018

A strategical game theoretic based demand response model for residential consumers in a fair environment.

INTERNATIONAL JOURNAL OF ELECTRICAL POWER & ENERGY SYSTEMS. 2018 APR 30;97:201-10.

- Authors::[Pal S](#), [Thakur S](#), Kumar R, Panigrahi BK.

Jaipur, India

2016

Industrial Experience

Remote Deep Learning Intern

DATACULTURE INC.

- Designed deep architectures that used cascaded LSTM and feed-forward MLP.
- Goal was to take actions to minimize or even pre-empt the online purchase returns.

Montreal, Canada

May 2017 - June 2017

Software Development Intern

Mumbai, India

SUPPLY.AI

June 2016 - Aug 2016

- Developed modules that automate the Exploratory Data Analysis of the datasets.
- Goal was to enhance communication between Apache Spark based units.
- These modules reduced considerable efforts on repetitive tasks made by the employees.

Remote Software Development Intern

Mumbai, India

ANALYZE N CONTROL

October 2015 - February 2016

- Developed an android application that invokes certain web-services via SOAP requests.
- Goal was to notify stockbrokers with latest notifications by regulators like stock exchanges.

Patents

Railway Maintenance Monitoring System

Jaipur, India

[LINK TO PUBLISHED PATENT \(APPLICATION NO. 1098/DEL/2014\)](#)

2014

- 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.
- Installed in 3 railway stations.

Intelligent Energy Management System

Jaipur, India

[LINK TO THE INVENTION \(PATENT APPLICATION NUMBER: 2407/DEL/2015\)](#)

2015

- Made a prototype that uses Game Theory and Machine Learning techniques on Demand Side Management, and variable tariff blocks.
- Goal was to reduce the power consumption bill and variability between power supply and demand.
- It was the central idea behind the startup *SensiYantra* which although didn't work, gave some invaluable lessons.

Selected Honors & Awards

INTERNATIONAL

2015 **SmartMeter**, Runner-ups, GridTech'15 International Conference & Exhibition

New Delhi, India

DOMESTIC

2013 **NANo**, 3rd prize in Android/Web app. development, competition by *Swiftday LLC, USA*

Jaipur, India

2012 **Ship-E-Trophy**, 1st prize in the Robotic event, competition at *Neuron'12, MNIT, Jaipur*

Jaipur, India

Skills

Machine Learning Libraries TensorFlow, PyTorch — Advanced Level Expertise

Programming Languages Python, Java, C, MySQL — Advanced Level Expertise

Scripting Languages JavaScript, PHP, HTML — Intermediate Level Expertise

Others Neo4j, CSS — Intermediate Level Expertise

Miscellaneous

2017 **Social Service**, taught TensorFlow and Git in McGill Innovation's *AI for Social Good* Summer Lab.

Montreal, Canada

2013 **Zine Website**, Developed the *website* for Zine.

Jaipur, India

2012-2016 **Zine Profile**, Zine Alumni, Robotics and Research Group of MNIT.

Jaipur, India

2013-2016 **Organizer & Lecturer**, at Annual Zine workshop

Jaipur, India