

# Arpit Kapoor

## Data Scientist

201, Sri Krishna Apartments,  
Patrika Nagar Rd No 2,  
HITECH City, Hyderabad,  
Telangana - 500081

+91 9884202383

[kapoor.arpit97@gmail.com](mailto:kapoor.arpit97@gmail.com)

[LinkedIn](#) [GitHub](#) [Medium](#)

## EXPERIENCE

### OoBA Labs, Hyderabad—Data Scientist

NOV 2019 - Present

Client: Wells Fargo, USA

Project: Anomaly Detection (ML)

Key Responsibilities:

- Develop Machine Learning model for detecting anomalies in data.
- Detect issues in data such as referential integrity failure using machine learning.
- Carry out Exploratory Data Analysis (EDA) on big data.
- Develop and maintain a machine learning pipeline for anomaly detection in big data using Tensorflow, PySpark and hadoop.
- Visualizing real time data in Kibana and elasticsearch.

### Bomotix, Hyderabad—Machine Learning Developer

JUN 2019 - NOV 2019

#### Machine Learning Developer Intern

JAN 2019 - JUN 2019

Key Responsibilities:

- Develop Computer Vision based Deep learning models using various deep learning frameworks: Object detection, object tracking and human pose estimation.
- Optimization and containerised deployment of ML models
- Developed new procedures for requirements gathering, testing, scripting and documentation to strengthen quality and functionality of applications.

### The University of Sydney, NSW Australia—Research Intern (Machine Learning)

JUN 2018 - AUG 2018

Key Responsibilities:

- Contribute to various research projects in the area of Bayesian machine learning.
- Carry out EDA, Data Preprocessing and Visualisation.
- Implement various Markov Chain Monte-Carlo based sampling Schemes transfer learning and evolutionary neural learning.

## SKILLS

Programming languages:

Python, C++, Java and Octave

Big Data Technologies:

Hadoop, PySpark,  
ElasticSearch

Machine Learning/Deep

Learning Tools: pyTorch,  
Apache MxNet, TensorFlow,  
Scikit-learn

Computer Vision: OpenCV,  
CNN

Visualization Tools: Kibana,  
Tableau

Databases: MySQL, Oracle

## ACHIEVEMENTS

Secured a Gold, 2 silver and a bronze medal in

RoboGames'17, Pleasanton,  
California, USA in various  
humanoid challenges.

Secured 3rd position in  
IEEE/RSJ IROS 2017

Humanoid Application  
Challenge, held in Vancouver,  
Canada.

Recipient of WATConsult

Innovation Award in BITS  
ATMOS'16 for Humanoid  
Teleoperation project.

Selected for Engineering the  
Eye 5 Hackathon (June 2016),  
organised by LVPEI,

## EDUCATION

### SRM Institute of Science and Technology, Chennai — *B.Tech Computer Science and Engineering*

JUL 2015 - MAY 2019

CGPA: 9.05

### Delhi Public School, Agra, Uttar Pradesh — Sr. Secondary

APRIL 2013 - MARCH 2015

Stream: **Science** (94.6%)

### Delhi Public School, Agra, Uttar Pradesh — Secondary

APRIL 2012 - MARCH 2013

CGPA: 9.8

## CO-ACADEMIC ACTIVITIES

### SRM Team Humanoid, SRM Institute of Science and Technology — *Team Leader*

SEP 2015 - PRESENT

Manage and carry out development of Humanoid Robots. Develop software packages for humanoid robotic systems. Represent the University in Several international robotics competitions.

## KEY-PROJECTS

### Anomaly Detection in Big Data

Designed a Machine Learning algorithm over Spark and Tensorflow that leverages **Autoencoder** to detect anomalies in huge data.

### Person Detection and Tracking

Developed an end-to-end pipeline for detecting players in sports videos and tracking them throughout the videos. Yolo V3 was trained for person detection while a combination of Siamese Network and DeepSORT was used for tracking them.

### 2D/3D Human Pose Estimation

Implemented and trained a human pose estimation model based on [DeepHAR](#)

### Hierarchical Deep Reinforcement Learning for Humanoids

Hierarchical Reinforcement learning inspired approach used to teach a higher order complex task, such as solving a maze, to a humanoid.

### Bayesian neural Transfer Learning

Developing Transfer Learning methodology for Bayesian neural networks using Markov Chain Monte Carlo (MCMC) sampling scheme

## PUBLICATIONS

“Surrogate-assisted Bayesian inversion for landscape and basin evolution models”, Geoscientific Model Development, 13(7):2959–2979, July 2020

“Surrogate-assisted parallel tempering for Bayesian neural learning”, Elsevier Engineering Applications of Artificial Intelligence, Volume 94, 2020, 103700, ISSN 0952-1976

“Bayesian neural multi-source transfer learning”. *Neurocomputing*, 378, 54–64.

“Teleoperation of a Humanoid Robot with Motion Imitation and Legged Locomotion”, in IEEE International Conference on Advanced Robotics and Mechatronics 2018.

“Dynamic Lateral Balance of humanoid robot on unstable surface”, IEEE International Conference On Electronics, Communication, Computer Technologies and Optimization Techniques 2017.

“Reinforcement Learning Methods and Approaches for Humanoid Robotics”, 4th International Conference on Artificial Intelligence and Evolutionary Computations in Engineering Systems. (Conference Presentation)

