# **Aditya Jain**

https://adityajain.me

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# **SKILLS**

#### **PROGRAMMING**

Python | IPython
Java | Android Programming
C | C++
HTML | JavaScript | CSS
Node.js | Express.js
SQL | MongoDB

# DATA SCIENCE | ML

Descriptive Statistics
Inferential Statistics
Regression Algorithms
Classification Algorithms
Clustering Techniques
Ensemble Techniques
Neural Networks | Deep learning
Convolutional Neural Networks
Sequence Models
Natural Language Processing
Reinforcement Learning

#### **CS CONCEPTS**

Operating System Concepts
Data Structures and Algorithms
Cloud Computing
DataBase Management Systems
Data Mining
Design and analysis of algorithms
Business Analytics & Intelligence
High Performance Computing
Software Engineering

#### **SOFTWARES AND TOOLS**

Pandas | Numpy
Matplotlib | Seaborn
Scikit-Learn
Tensorflow | Keras | Pytorch
MS Excel | Tableau (Basics)
Linux | Windows
Git and GitHub

## **FDUCATION**

# **Bachelor of Engineering (Computer Engineering)**

Maharashtra Institute of Technology, Pune Graduation: July, 2018 | Aggregate: **74%** 

H.S.C. (12th)

Central Board of Secondary Education
Completion: May, 2014 | Aggregate: 89.2%

#### **EXPERIENCE**

# **Associate Data Scientist | Cognizant**

Sep 2018 - Current | Bengaluru, Karnataka, India

Worked on **Data Analysis and Predictive Modelling** for a **Healthcare Client** to solve different use-cases. Some major use-cases are HOS Mental and Physical Health, HOS Bladder Control and Churn Prediction.

# Intern | Heelium Sports Pvt. Ltd.

Dec 2016 - Dec 2017 | Pune, Maharashtra, India

Worked on various assignments using **mean stack technologies** like node.js, MongoDb, express.js, etc. Also worked on android for connection web backend to android app.

## CERTIFICATIONS

# Deep Learning Specialization | DeepLearning.ai

Completion: June 2019 | Credential: AMS3W8UNB6PW

This specialization helped me learn various **basic and advanced concepts of deep learning** such as hyperparameter tuning, regularization, optimization methods, CNNs, Sequence Models, etc.

# **Reinforcement Learning Specialization | University of Alberta**

Completion: October 2019

This course of RL on Coursera helped me learn various concepts like foundations of RL, policy/value iteration, Monte Carlo Learning, Temporal Difference Learning, Deep Q Learning and more.

#### **ACHIEVEMENTS**

- First runner up in Smart India Hackathon 2017, we had developed an android app to perform biometric authentication of a student appearing for an exam. This system was more robust, fast and secure than the traditional system used.
- Finalist in Infosys Techzooka Hackathon 2016, we as a team of 3 students had developed an android application to show details of nearby grocery stores and offers based on **user location**, we have used **firebase** as a database.
- Ranked in top 3000 among people from around the world in HackerRank "Algorithms" section. Also I have a gold badge on SQL and Algorithms on Hackerrank.

## **TESTS**

**GRE: 324**Verbal: 157
Quantitative: 167

AWA:4

#### **TOEFL: 110**

Reading: 28 Listening: 28 Speaking: 27 Writing: 27

# LINKS

Github:// adityajn105 Projects Page://Link Blogs Page://Link

LinkedIn:// adityajn105 Twitter:// @adityajn105 Kaggle:// adityajn105

# PERSONAL DETAILS

**NAME** Aditya Jain

**DATE OF BIRTH** 10/05/1996

#### **LANGUAGES**

English Hindi (Native)

NATIONALITY Indian

## **PROJECTS**

Maintaining Physical & Mental Health using Health Outcome Survey | Cognizant | 2019

Used data analytics & predictive modelling on HOS Survey, demographics, claims data, prescription data to predict the members at the risk of mental and physical health decline.

## Churn Prediction/Retention Modelling | Cognizant | 2019

Used various **statistical & machine learning techniques** to predict members who are likely to get churned, and targeting these members using various outreach strategies to prevent churn.

#### Flappy Bird Reinforcement Learning Agent | Link | 2019

Flappy Bird Game trained on a **Double Dueling Deep Q Network** with Prioritized Experience Replay implemented using Pytorch.

# Kinship Detection using Siamese Network | Link | 2019

Implemented **Siamese Network** using Keras to detect kinship among two persons with faces given. Used **VGGFace** to generate face embeddings.

# Host Based Intrusion Detection System | Final Year Project | 2018

We had developed a HIDS as a **B.E. Project** which is used to prevent the host system from being compromised by intruders.

# THESIS | BLOGS

# Convolutional NN for Autonomous Robot Navigation | 2017 | Thesis | Unpublished

Presented my junior year thesis on CNN architectures which can be utilized for autonomous robot navigation. Different architectures presented include YOLO, UNets, ResNet, etc which give best results when used together.

# Attention Mechanism For Machine Translation | 2019 | Blog | Link

After completing DL Specialization, I had written a blog on Attention mechanism and its working so that it could be helpful for others; also build a **demo model for date translation**.

# Policy Optimization in Known MDP Environment | 2018 | Blog | Link

I had written a blog on Policy Optimization techniques such as **Value Iteration** and **Policy Iteration** which doing a Reinforcement Learning Course of David Silver.

# Monte Carlo and Temporal Difference Learning | 2019 | Blog | Link

This is a blog for policy optimization techniques but in **unknown MDP environment**.

#### Deep Q Learning and Improvements in DQN | 2019 | Blog | Link

Here I have written about building a flappy bird game RL agent using Deep Q learning.

#### **ACTIVITIES**

- Organizer of national level event "Linuxication" for years 2016,2017 and 2018.
- Member of MCUG (MIT computer users group) in 2016, 2017, 2018 which conducted various technical events and sessions throughout the year.
- Member of MCUG newsletter team in college for year 2016.
- Volunteer for "Animal Care" and "Save the Environment" campaign for Cognizant Outreach Program in 2019.
- "Joint Event Coordinator" for a colleges' technical Event "Texephyr" in the year 2017, where I helped in organizing some coding competitions.