Aditya Jain

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AREAS OF INTEREST

Computer Vision
Sequence Modeling
Reinforcement Learning
Deep Learning
Healthcare
Medical Imaging

SKILLS

PROGRAMMING

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

DATA SCIENCE | ML

Statistical Modelling
Regression Algorithms
Classification Algorithms
Clustering Techniques
Ensemble Techniques
Neural Networks | Deep learning
Reinforcement Learning

CS CONCEPTS

Operating System Concepts
Data Structures and Algorithms
Object-Oriented Programming
Cloud Computing
Database Management Systems
Data Mining
Computer Networks
Design and analysis of algorithms
Business Analytics & Intelligence
High-Performance Computing
Software Engineering

SOFTWARE AND TOOLS

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

EDUCATION

Bachelor of Engineering (Computer Engineering)

Maharashtra Institute of Technology, Pune | Pune University
Graduation: July 2018 | Aggregate: **74% (First Class with Distinction)**

H.S.C. (12th)

Central Board of Secondary Education
Completion : May 2013 | Aggregate : **89.2%**

EXPERIENCE

Associate Data Scientist | Cognizant

Sep 2018 - Current | Bengaluru, Karnataka, India
Developing machine learning models that assist customers' outreach programs by targeting the right and influential population to improve the star-ratings of MEDICARE plans by addressing specific measures. Worked on different technologies including Python, numpy, pandas, scikit-learn, Keras, SQL, etc.

Intern | Heelium Sports Pvt. Ltd.

Oct 2016 - Dec 2017 | Pune, Maharashtra, India
Worked and completed various assignments using **MEAN stack technologies** like Node.js, MongoDB, Express.js, etc. Alongside worked on analytics of sales of products, user profiles during this period.

CERTIFICATIONS

Deep Learning Specialization | DeepLearning.ai

Completion: June 2019 | Credential: AMS3W8UNB6PW
Completed topics on fundamentals of neural networks and deep learning, hyperparameter tuning, regularization, optimization methods, convolution neural networks, sequence models, etc.

Reinforcement Learning Specialization | University of Alberta

Completion: October 2019 | Credential: ZQ9XKWDK2PJR
Completed topics on foundations of Reinforcement Learning, policy/value iterations, Monte-Carlo learning, Temporal Difference Learning, Deep Q learning and more.

ACHIEVEMENTS

- **First runner up in Smart India Hackathon 2017** among 300 teams. Developed a fast, reliable and secure system to perform biometric authentication using the fingerprint of a student during an exam.
- The **finalist (among top 10) in Infosys Techzooka Hackathon 2016** among 100 teams. Developed an android application to show discounts on the nearby grocery stores for user convenience.
- Ranked among **top 3000 in HackerRank "Algorithms"** section. I also have a gold badge on SQL and Algorithms on Hackerrank.

EXTRA-CURRICULAR

- **Organizer and lecturer** in a national level event called "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 the MCUG **newsletter team** in college for the year 2016.
- **Volunteer for "Animal Care" & "Save the Environment"** campaign for Cognizant Outreach Program.
- **"Joint Event Coordinator"** for a colleges' technical Event "Texephyr" in the year 2017, where I helped in organizing some coding competitions.

TESTS

GRE : 324
Verbal : 157
Quantitative : 167
AWA : 4

TOEFL : 110
Reading: 28
Listening: 28
Speaking: 27
Writing: 27

LINKS

Github:// adityajn105
All Projects://Link
All Blogs://Link
LinkedIn:// adityajn105
Twitter:// @adityajn105

PERSONAL DETAILS

NAME
Aditya Jain

DATE OF BIRTH
10 May 1996

LANGUAGES
English
Hindi (Native)

NATIONALITY
Indian

PROJECTS

Maintaining Physical & Mental Health using Health Outcome Survey | Cognizant
Used **data analytics & predictive modeling** to train machine learning models on HOS Survey, claims data, prescription data, demographics for predicting members at the **risk of mental & physical health decline.**

Churn Prediction/Retention Modelling | Cognizant
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.

Brain Tumor Segmentation in MRI using U-Net | Link
Implemented U-Net from the paper "U-Net: Convolutional Networks for Biomedical Image Segmentation" to **segment brain tumors in given MRI images** of the brain. Achieved 68% IOU on validation data.

Image Captioning Bot | Link
Implemented **'merge' architecture for image captioning** from the paper "What is the Role of Recurrent Neural Networks (RNNs) in an Image Caption Generator?" using Keras and the Flickr8k dataset.

Flappy Bird Reinforcement Learning Agent | Link
Flappy Bird Game trained on a **Double Dueling Deep Q Network** with Prioritized Experience Replay implemented using Pytorch. This agent can be tweaked and trained to master other games also.

THESIS | BLOGS

Convolutional NN for Autonomous Robot Navigation | Junior Year Thesis
Presented my junior year thesis on CNN architectures such as YOLO, U-Nets, ResNet, etc which can be utilized for **autonomous robot navigation tasks**. Also compared other algorithms like SVM with them.

Attention Mechanism For Machine Translation | Blog | Link
Blog on **attention mechanism**, its working and mathematics behind it. Also, explained the architecture and how to build a date translation model using attention mechanism from scratch using Keras..

Policy Optimization in Known MDP Environment | Blog | Link
Blog on policy optimization techniques such as **Value Iteration** and **Policy Iteration**. Also explained Markov Decision Process, Bellman equation, state-value , and action-value functions.

Monte Carlo and Temporal Difference Learning | Blog | Link
Blog on policy optimization techniques in **unknown MDP environments** like **MC learning and TD learning**.

Deep Q Learning and Improvements in DQN | Blog | Link
Blog about building a **flappy bird game reinforcement learning agent** using Deep Q learning.