Aditya Jain

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AREAS OF INTEREST

Computer Vision
Natural language Processing
Reinforcement Learning
Deep Learning
Healthcare
BioInformatics

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, 2014 | 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, 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 the 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
Projects Page://Link
Blogs Page://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 which can be utilized for autonomous robot navigation tasks. Presented different architectures such as YOLO, U-Nets, ResNet, etc which give best results when used together.

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 **unknown MDP environments** such as 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.