

# Aditya Jain

<https://adityajain.me>

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## AREAS OF INTEREST

Data Science  
Machine Learning  
Computer Vision  
Sequence Modeling  
Reinforcement Learning  
Deep Learning

## 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  
Basics of Reinforcement Learning

### CS CONCEPTS

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

### SOFTWARE AND TOOLS

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

## EDUCATION

### Bachelor of Engineering ( Computer Engineering )

Maharashtra Institute of Technology, Pune | University of Pune

Graduation: July 2018 | Aggregate: 74% (First Class with Distinction)

### H.S.C. (12<sup>th</sup> Grade)

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.

March 2017 - June 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.

## 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.

## 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, prescriptions, demographics to understand important factors leading to a mental and physical decline in the Medicare population.
- Used tree-based ensemble technique to build models that can predict the propensity of physical and mental health decline in a member. Also, used clustering to identify the right outreach strategy.
- **Tools Used:** Python, SciKit-Learn, Numpy, Pandas, IBM DB2, etc.

### Bladder Control in Medicare Population | Cognizant

- Used predictive modeling to build ML & statistical models that can predict the propensity of a member having Urinary Incontinence and also to identify outreach channels for those members.
- Worked on demographics with healthcare data such as prescription data, claims data, etc to train a tree-based bagging model that can calculate the propensity for a member having bladder issues.
- **Tools Used:** Python, Scikit-Learn, Pandas, Numpy, IBM DB2, Keras, etc.

### Fall Risk prediction using Health Outcome Survey | Cognizant

- Used Health Outcome Survey's responses to various cohort members to outreach the medicare population having fall and balance problems.
- Worked on past clinical data, prescription data, etc to come up with a model to predict people likely to have fall or balance issues.
- **Tools Used:** Python, Scikit-Learn, Pandas, Numpy, IBM DB2, Keras, etc.

## LINKS

**Github:** [// adityajn105](#)

**Personal Projects:** [//Link](#)

**All Blogs:** [//Link](#)

**LinkedIn:** [// adityajn105](#)

**Codeforces:** [//adityajn105](#)

**DockerHub:** [//adityajn105](#)

## PERSONAL DETAILS

### NAME

Aditya Jain

### DATE OF BIRTH

10 May 1996

### LANGUAGES

English

Hindi (Native)

## Kinship detection using faces in the Wild | Kaggle Challenge | [Link](#)

- Used facial images of different family members, we have to come up with a model to identify where they are kin to each other or not. I have used transfer learning with VGG-Facenet to generate face embeddings and then trained a network with Siamese architecture to find kinship probability. My final Submission predicted with 79.2 AUC.
- **Tools Used:** numpy, Keras, matplotlib, OpenCV.

## TGS salt identification | Kaggle Challenge | [Link](#)

- This is an Image Segmentation problem. Seismic images and their corresponding masks where salt sediment are present were given. The challenge was to predict sediment mask from seismic images. I used UNet with pre-trained VGG16 as an encoder and Decoder from scratch. I also applied image augmentation techniques to train a model that had given me 67.6 IOU on the final submission.
- **Tools Used:** numpy, Keras, matplotlib, OpenCV.

## THESIS | WRITINGS

### 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.

## 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.

### Core Java | Seed Infotech, Pune

Completed topics on fundamentals of object-oriented programming languages, inheritance in java,

## 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.