

# Pranjal S Rajput

I am currently pursuing a Masters degree at Delft University of Technology, The Netherlands, with a focus on Deep Learning applications in Computer Vision.

#### Education

2018—present **Delft University of Technology**, *M.Sc.*, *Embedded Systems* (Annotation Entrepreneurship). Research Thesis: Efficient ways to annotate a large scale video dataset for computer vision

Nov 2019 Czech Technical University in Prague, ATHENS Network: Advanced Technology Higher Education Network.

Learned various concepts of Game Theory

2011–2015 Maulana Azad National University of Technology, Bhopal, India, B.Tech., Electronics & Communication Engineering.

### Academic Projects

2019 Collection and Preparation of a Novel Dataset of Marathon Runners.

A novel video dataset of marathon runners captured using hand held smartphone cameras.

2019 cGANs for Cartoon to Real life images.

Conversion of cartoonized faces to a real face image using Conditional GANs.

2019 Localization and Activity Recognition App.

Three android based apps are developed for localization and activity recognition of a person in a floor of a building. The methods used are KNN classifier, Bayesian filter and Particle filter.

2019 Stabilization of the Quadruple drone.

Stabilization of a quadruple drone such that it can hover and fly with only limited user control. An android app is also developed to control the drone using smartphone via Bluetooth.

2019 Architectural Analysis & Contribution in FLAIR.

Analyzed the complete architecture of FLAIR, a state-of-the-art Natural Language Processing Python library.

2015 Major Project: Enhanced Car Security System.

Advised by Prof. Dr. Jyoti Singhai: A security system is developed consisting of a finger print module, an alcohol detector module and a RFID module.

## Research Experience

#### Teaching Experience

- April 2020 Graduate Teaching Assistant of Computer Vision.
  - present Main responsibilities: Guiding student projects, grading of the seminar presentations, evaluate the questions submitted by the students.
- April 2020 Graduate Teaching Assistant of Cloud Computing.
  - present Main responsibilities: Grading the paper summaries submitted by students.
  - Feb 2020 Graduate Teaching Assistant of Deep Learning.
- April 2020 Main responsibilities: Guided 5 deep learning projects, helped students during the lab, evaluated the questions submitted by the students.
- Nov 2019 Graduate Teaching Assistant of Distributed Algorithms.
  - Feb 2020 Main responsibilities: Helped students during the lab, evaluated the lab assignments and paper summaries that were part of the exam.

#### Work Experience

- 2015-2018 Senior Software Engineer (Nucleus Software Exports Ltd, India), Role: Developer of an analytical product used in banks. Banks can use machine learning models to know more about their customers and make informed decisions before lending loans.
  - Algorithms Implemented: Decision Tree Algorithm, Batch Processing Module, Logistic Regression, K-Means clustering
  - Technical Upgradation: From Struts 1.x and Java 6 to Struts 2 Framework and Java 8
  - **Performance Upgrade:** Enhanced and improved the performance of various functionalities of the product like Multiple Linear Regression, Scorecard, Logistic Regression.
  - Security Upgrade: Enhanced Application security by implementing features like X-frame Options, Cryptographic nonce, Strong Cipher Suite in Jboss server, and database verification layer. The product was certified by *Paladion*.
  - **Product Compatibility:** Made Lending Analytics application compatible for Chrome, Mozilla Firefox, and Internet Explorer 11.
  - Database Script: Creation, Rollback and Cleanup for the entire application
  - Webservices: Using REST API

#### Internships

#### 2014 Summer Internship at IIT Indore.

Advised by Dr. Vivek Kanhangad: Face Recognition using Principle Component Analysis

#### Extra Curricular Activities

2011-2015 **Vision**, *MANIT*, India.

Was an active member of Vision, a technical student club. Was Technical Head in 2014 -15.

2012 Workshops, MANIT, India.

Conducted various workshops on White Line Tracer Robots, Microcontrollers, & MATLAB for freshmen.

2013 Roboelevar, MANIT, India.

Event Coordinator of national level Robotics competition "ROBOELEVAR" in TECHNOSEARCH 2013, at MANIT.

#### Skills

Programming Skills: Python, Java

**Python Libraries**: Numpy, Scipy, Matplotlib, pandas, scikit-learn, Selenium Webdriver, Beautiful soup

Deep Learning Frameworks: PyTorch

Database: Oracle, MySQL

Web-Related Knowledge: JSP, JQuery, JavaScript, Struts, Spring, HTML, CSS, Servlets

Others: Eclipse, Jenkins, Jasper, SonarQube, JIRA, PyCharm, Weblogic Server, Jboss Server, CV-AVR, Arduino, Android studio, Bash

Worked on Microcontrollers: ATMega8L, ATMega16L, AT89S52

#### Honors and Awards

- 2019 TRAVEL GRANT, ATHENS Network: Advanced Technology Higher Education Network
- 2018 **Pride Of Performance** Award by the Senior Management of Lending Analytics
- 2017 L.I.V.E Small Team Award for the team Lending Analytics of year 2017
- 2012 Second Runner-up, Grid Solver Robot category in Technosearch, MANIT

#### Languages

English Business Fluent

Hindi Mother Tongue or Bilingual Proficiency

#### Interests

Cricket, Music, Movies