**ADITYA DEVENDRA PANDEY**

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**Academic Background**

<http://adipandey.com/>

<https://www.linkedin.com/in/adi-pandey>

<https://github.com/addherbs>

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| **Master of Science - Computer Science** - GPA: 3.42 / 4.0 | Aug 2016 to May 2018 |
| University of Texas, Arlington |  |
| **Bachelor of Engineering - Computer Engineering** - GPA: 7.08 / 10.0 | Aug 2012 to May 2016 |
| University of Mumbai, Xavier Institute of Engineering - Mumbai, India |  |

**Computing Skills  
Programming Languages**: Python, Java, C, C++, JavaScript, PHP

**Statistical Language Tools**: R Programming, MATLAB

**Cloud Computing Services**: Amazon EC2, Amazon S3, Amazon RDS, Amazon EB, Amazon ElastiCache, IBM Bluemix

**Software and Application Frameworks**: Flask, Node.js, Android Studio, Hadoop, Linux, Windows

**Database**: MongoDB, SQL**,** Minibase, Oracle

**Basic Knowledge**: Firebase, Ruby

**Professional Experience**

Cloudstrats Technologies, Mumbai, India June 2016 to Aug 2016

* Developed an Android application “XFix Services”, a product of Cloudstrats Technologies which provides the interface between the customers and the services that the company provides.
* Developed a website for the company product “XFix Services”.
* Was part of the database Migration project from Gmail to Office365.
* Developed an understanding on Oracle database and analyzed large datasets for projects provided by the company.
* Worked on two projects of developing websites for the clients.

**Projects**

**Behavior Based Fire Extinguisher Robot (Unsupervised) using C++** [**Link**](https://github.com/addherbs/Behavior_Based_Fire_Extinguisher_Robot)Oct 2017to Nov 2017

* In a random maze of obstacles and a fire place, this robot manages to detect fire and extinguish it.
* Two touch sensors, one color sensor, one IR sensor and one Gyro sensor were used to detect obstacles and the goal color(fire). A cardboard was clipped to two large motors which was used to extinguish the fire.

**Shape Printing Robotic Arm** **using C++** [**Link**](https://github.com/addherbs/Shape_Printing_Robotic_Arm) Nov 2017to Dec 2017

* This robot can print any given shape provided we know the coordinates of the respective shape.
* The robot had two large arms which could cover the V-range between approximately 30 to 120 degree of canvas.
* Basically, the robot can move in 3 different directions; upward, downward and diagonal (angle and slope based).

**Image Processing** [**Link**](https://github.com/addherbs/Image_Processing_Algorithms)May 2017 to June 2017

* From scratch I developed 4 different image processing algorithms which were; Prewitt template (Horizontal) edge detection algorithm, Cross - convolution template matching image processing algorithm, Blob coloring and detection for images and Image processing using template matching (Convolution, Normalization of template).
* All the 4 algorithms where developed in a progressive way, when given an Image and it returned the processed image after applying the algorithms.

**Goal Finder in The Maze with Obstacles (Supervised) using C++** [**Link**](https://github.com/addherbs/Super_Learning_Goal_Finder_Robot)Sep 2017 to Oct 2017

* When already having the map/ maze coordinates (supervised) with obstacles and free space to move, the robot finds its way to reach the goal object.
* The robot can move in 4 directions (up/ down/ left/ right) and can rotate 90 degree using Gyro sensor on spot.

**Robotic Manipulator Simulator (Forward/ Inverse Kinematics) using C** [**Link**](https://github.com/addherbs/Robotic_manipulator_programming_simulation/blob/master/forward_kinematic_5_DOF.c)July 2017

* When given a robot with 5 degree of freedom and a theta vector it calculates the forward and inverse kinematics of it.
* The robot can perform 4 actions which are; Translation and Rotation along X/ Y and Z axis.

**Machine Learning Projects using Python/ MATLAB/ Java** [**Link**](https://github.com/addherbs/Machine-Learning-Projects)Feb 2017 to May 2017

* It was a progressive term where I developed various ML algorithms from scratch without using any library.
* Some of the algorithms are; Decision trees including Randomized forests, Naïve Bayes, Neural Networks, PCA, Linear and Logistic Regression, SVD, Gaussian estimation etc.
* Some of the datasets used for the algorithms were, Pendigits, Satellite, Yeast and Numeric.

**Data Mining using R Programming** [**Link**](https://github.com/addherbs/Data-Mining-using-R-Programming)Sep 2016 to Dec 2016

* Here, I used R programming and its inbuilt tools and libraries to learn, develop and plot (graph) of some of the algorithms.
* I used Titanic dataset to work with Apriori algorithm, Decision trees and Linear Regression.
* Fertility dataset for designing training and testing model for KNN, Support Vector Machines and Naïve Bayes algorithm.

**Working With Web Services of** [**Amazon**](https://github.com/addherbs/Working_With_AWS)**/** [**IBM**](https://github.com/addherbs/IBM_Bluemix_with_Python)**/** [**Microsoft**](https://github.com/addherbs/Developing_With_Microsoft_Azure) **using Python** June 2017 to July 2017

* While working with these web services I learned a lot about the data services, cloud computing, database operations and performance.
* Some of the libraries and concepts that I used were, respective Virtual Machines, JMeter, Boto3, tkinter, Scikit-learn, caching, auto-scaling etc.