

EDUCATION

University of Florida, Gainesville, Florida

Aug 2019 - Aug 2021

Master of Science - Computer Science, Herbert Wertheim College of Engineering

GPA: 3.89/4.0

- Courses: Fundamentals of Machine Learning, Distributed Operating Systems, Analysis of Algorithms

Indian Institute of Technology Jodhpur, Rajasthan, India

July 2011 - May 2015

Bachelor of Technology, Computer Science and Engineering

GPA: 7.2/10

- Received Merit-cum-Means Scholarship AY 2011-12, for best academic performance, from the institute
- Relevant Electives: Complex Networks, AI & Machine Learning, Image Processing, Neuroscience

TECHNICAL SKILLS

- Proficient in: **Python** (Anaconda, Django, Numpy, Pyplot), **C++** (OpenCV, Vectors), Elixir, Ruby, PostgreSQL
- Framework/libs./platforms: Keras, TensorFlow, Scikit, PyTorch, Phoenix, Arduino, Ruby on Rails, Bitbucket, Git
- Basic in: R, Java, Dart; Familiar with: C, prolog, JavaScript, JSON, JQuery, MATLAB, LabView, Julia, Octave
- Software: Solidworks & Simulations, 3Ds-Max, Adobe Photoshop & After Effects, Sony Vegas, MS Office

PROFESSIONAL EXPERIENCE

Jr. Research Engineer, IoTSPACE Pvt. Ltd., India

Jan 2018 - Apr 2019

- As **Research Assistant** to evaluate Product designs for IoT based Smart City devices and Kitchen robotics.
- As **Alliance Executive** for Smart City consortium, and for enterprise outreach strategies.

Software Engineer, Voylla Fashions Pvt. Ltd., India

May 2015 - Dec 2016

- Developed 'Virtual Try-On' - interactive web-app to virtually try jewelry online - using **HTML5 Canvas** & **Object-tracking JS frameworks**. Devised optimal **Data Centralization process** by **ELT mechanisms**.
- Implemented automation of accurately fitting Jewelry images on Model images using **AWS S3**, standardizing **Image-processing** through synchronized **Python, Ruby, AWS CLI** and **Photoshop Action Scripts**.
- Worked on **backend/frontend optimizations** including data-indexing & garbage-collection issues

PERSONAL/ACADEMIC PROJECTS

Ensemble Learning model for Optical Character Recognition

Course Project, Fundamentals of Machine Learning, University of Florida

Aug 2019-Dec 2019

Enhanced the preprocessed input by extracting character contours using shape-context descriptor algorithm. Achieved ~96% recognition accuracy implementing KNN model fed with PCA-applied character images.

Drug-Similarity & Drug-Target Interactions Models

B.tech Final Year Project, IIT Jodhpur

Aug 2014-Apr 2015

Programmed a learning software for classifying Drugs & analyzed different correlation indices, significantly reducing Drug Pipeline Process and creating accurate metrics of predicting Drug Repositioning.

Solar (PV) Panel Cleaning Robot

Industry Project (Larsen & Turbo, Solar Park in Phalodi, Rajasthan), IIT Jodhpur

Apr 2012-Aug 2012

Fashioned designs & assessed the efficiency of three models (autonomous/manual) for low-cost dry cleaning robots for Inclined Solar-panels. The selected model was deployed at Solar Park, Phalodi.

Micro Air Vehicle

MICAV-2013 (National-level Annual competition organized by DRDO and NAL)

Dec 2012 - July 2013

Engineered MANET with AODV protocols for communication and media transmission network with an autonomous Micro-UAV using a manual UGV as a hopping station. The team got shortlisted in the finals.

ACHIEVEMENTS

#UdacityKPITScholar: Achieved Scholarship for 'Self Driving Car Engineer' nanodegree

Nov 2018 - Aug 2019

- Projects (in 1st term): Lane Tracking, Traffic Sign Classifier, Behavioral Cloning, Advanced Kalman Filters
- Projects (in 2nd term): Kidnapped Vehicle using particle filters, Implementing Feedback system using ROS

EXTRA-CURRICULAR

- MOOCs (Audits): Deep Learning Specialization Course (Coursera), Underactuated Robotics by MIT (Edx)
 - Undertook project on 'Anatomical Brain Segmentation' as part of the course (citing Qure.ai blog), 2017 - 2018
- Pioneered First Robotics Summer Camp at IIT Jodhpur in Summer 2013 for 8 interdisciplinary teams.
- Got selected for short term course on 'Mechatronics and Robotics' by IIT Indore in July 2013, getting hands-on practice on cutting-edge technology tools, MEMS and Actuators.
- Media, Arts & Design Council (Students' Gymkhana, IITJ), General Secretary (6 clubs), Apr 2013-Apr 2014.
- Punarjyoti Eye-donation Society (City NGO, Bathinda), Medical Camp Organizing Committee, since Feb 2017.