

WINS GOYAL

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EDUCATION

University of Florida, Gainesville, Florida

Aug 2019–Dec 2020

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

GPA: 3.89/4.0

- Courses: Distributed Operating Systems, Analysis of Algorithms, Database Systems and Implementation, Mathematics for Intelligent Systems, Machine Learning, Projects in Data Science

Indian Institute of Technology (IIT) Jodhpur, Rajasthan, India

July 2011–May 2015

Bachelor of Science, Computer Science and Engineering

- Relevant Courses: Complex Networks, AI & Pattern Recognition, Image Processing, Operating Systems

TECHNICAL SKILLS

- Proficient:** Python, C++, Java, Elixir, Ruby, R; **Web Technologies:** JavaScript, React.js, Node.js, HTML/CSS
- Database / Streaming:** PostgreSQL, MongoDB, Airflow, Cassandra, Spark, AWS Redshift, AWS S3
- Framework / Platforms:** Django, Phoenix, Flask, Ruby on Rails, Docker, Gtest, Spyder, Jupyter, CLion
- ML/NLP:** SpaCy, OpenIE, TensorFlow, PyTorch, OpenCV2, Numpy, Scikit, Pandas, Matplotlib, MATLAB

PROFESSIONAL EXPERIENCE

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

Jan 2018–Apr 2019

- Enhanced data security by ~80%, by encoding the MQTT protocol over a Mesh topology of IoT products.
- Solved *brown-out memory flush* and failure tolerance issues to prevent data loss on Raspberry Pi 3 & Arduino.

Software Engineer, Voylla Fashions Pvt. Ltd., Rajasthan, India

May 2015–Dec 2016

- Lead a team of 3 in developing an interactive web-app - '*Virtual Try-On*' - to virtually try jewelry online.
- Devised a **Data Centralization process** by ETL mechanisms to act as feed to the Data Visualization tools.
- Automated and standardized ~70% of image-editing task of accurately fitting Jewelry images on Model images increasing the output of Image-processing team from 100 images/day to 1000 images/day.

GRADUATE RESEARCH WORK

EdgeVPN (Open Source), Adv. Computing & Info. Systems (ACIS) Lab

May 2020–present

- Upgraded Tincan and WebRTC files of P2P-based VPN Software, and integrated new WebUI & WebService.

Graph-to-text Representation, Data Science Research (DSR) Lab

May 2020–present

- Implemented Variational Auto-encoder with Attention based Seq2Seq models to measure the accuracy of Sentence-Triples-Sentence conversion using SpaCy, NLTK, OpenIE & pySpark on large Wiki Dumps.

Hypotheses Generation, Data Science Research (DSR) Lab

Jan 2020–Apr 2020

- Designed evaluation metrics for Query Inferencing over DARPA provided Knowledge Base (KB) generating more coherent and generalized hypotheses using *pre-trained Embeddings* & *TF-IDF scores*.

PERSONAL / ACADEMIC PROJECTS

Data Engineering Nanodegree, Udacity

July 2020–present


- Modeled a cloud data warehouse to optimize data analytics for the music-streaming app.
- Configured and debugged production data-pipelines with Airflow and star-schema architecture.

Ensemble Learning model for Optical Character Recognition 

Course Project, Fundamentals of Machine Learning, University of Florida

Nov 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.

Actor Model Applications in Distributed Systems 

Projects in Distributed Operating Systems, University of Florida

Sep 2019–Dec 2019

- Successfully implemented a paper on '*Resilient Tapestry Overlay*' using backpointers incorporated DHTs.
- Analyzed '*Gossip Algorithm*' performance on different large network topologies. Established web-sockets with Genserver architecture for Twitter Engine simulator using ETS Storage and Phoenix framework.

Self Driving Car Engineer, Udacity 

Jan 2017–Dec 2018

- Developed Traffic Sign Classifier, Behavioral Cloning, Extended Kalman Filters, Kidnapped Vehicle projects.

ACHIEVEMENTS / AWARDS

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

Jan 2017–Dec 2018

Merit-cum-Means Scholar: Achieved tuition fee waiver for best Academic performance

Jul 2012–Apr 2013

EXTRA-CURRICULAR

- Coursera Specializations:** Deep Learning Course (2017-2018), Natural Language Processing (July-Aug 2020)
 - 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