WINS GOYAL

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EDUCATION

University of Florida, Gainesville, Florida — *Aug 2019–May 2021*

Master of Science - Computer Science, Herbert Wertheim College of Engineering — *GPA: 3.89/4.0*

- *Courses:* Distributed Systems, Analysis of Algorithms, Database Systems Implementation, System Design, Machine Learning, Projects in Data Science, Network Data Streaming, Programming Languages

Indian Institute of Technology (IIT) Jodhpur, Rajasthan, India — *Jul 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, Flask, Dockers, Kubernetes, Junit, Gtest, RTOS, HiPerGator2, DialogFlow
- ***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–Aug 2020*

- Integrated latest stable version packages of Tincan and WebRTC to EdgeVPN *(a P2P-based decentralized VPN software in C++ & Python)*. Tested & modified existing class methods as per the upgraded packages.
- Re-designed the WebUI and Webservice for the visual simulation of Software testing *(Flask, React & Node)*.

Graph-to-text Representation, *Data Science Research (DSR) Lab* — *May 2020–Aug 2020*

- Implemented Variational Auto-encoder along 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

Unix-based Network File System, *Principles of Computer System Design* — *Sep 2020–Nov 2020*

- Creating RPC-based NFS to run on multi-client-server system with data redundancy to achieve consistency.

Music Streaming App, *Data Engineering Nanodegree, Udacity* — *Jul 2020–Aug 2020*

- Modeled a data warehouse to optimize data analytics. Configured data pipelines & star-schema architecture.

Ensemble Learning model for Optical Character Recognition — *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.

Tapestry Overlay & Twitter Clone Simulation, *Distributed Systems* — *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.

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:* Natural Language Processing, Advanced Machine Learning *(Jul-Aug 2020)*
- *Udacity*: Self-driving Car Engineer (*Jan 2017-Dec 2018*) nanodegree on perception, mapping & localization
- Pioneered *First Robotics Summer Camp* at IIT Jodhpur in *Summer 2013* funding 8 interdisciplinary teams
- Lead *Design & Arts Society* at IIT Jodhpur as *General Secretary*, elected as a student representative *(2013-2014)*