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, Algorithms, Database Systems & Implementation, Network Data Streaming, System Design, Machine Learning, Projects in Data Science, Programming Lang. Principles

Indian Institute of Technology (IIT) Jodhpur, Rajasthan, India *Jul 2011–May 2015*
Bachelor of Science, Computer Science and Engineering
- *Courses:* Complex Networks, AI & Pattern Recognition, Image Processing, Operating Systems

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 the image-editing task of accurately fitting Jewelry images on Model images increasing the output of the Image-processing team *from 100 images/day to 1000 images/day*.

RESEARCH EXPERIENCE

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 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*.

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 logging, virtualization, data redundancy.

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.

SKILLS

- **Languages/Web:** *Python, C++, Java, Scala, Ruby, R, C#, JavaScript, React.js, Node.js, HTML/CSS*
- **Frameworks:** *Django, Docker, Kubernetes, Junit, Flask, Gtest, DialogFlow, Unity, Jupyter, ETL*
- **Database:** *MongoDB, PostgreSQL, Kafka, Spark, MySQL, Cassandra, Airflow, Redshift, S3, GCP*
- **ML/NLP:** *SpaCy, OpenIE, Numpy, Scikit, Pandas, NLTK, TensorFlow, PyTorch, OpenCV2, Matplot*

LEADERSHIP & EXTRA-CURRICULAR

- ***Mentor*** *(SwampHacks)*, annual hackathon at University of Florida *2020*
- ***General Secretary***, *Design & Arts Society* at IIT Jodhpur, elected by 1000 students *2013-2014*
- ***Chief Organizer***, *1st Robotics Summer Camp* at IIT Jodhpur funding 8 interdisciplinary teams *2013*
- *1st* Runner-up team in *Micro-Air Vehicle (MICAV)* national competition by DRDO & NAL *2012-2013*
- Deployed a low-cost *PV-panel Cleaning Robot*, Solar Park, Phalodi *(Larsen & Turbo)* *2012*

ACHIEVEMENTS

Academic Achievement Award waiving $4500 fee by UF for best academic performance *Aug2019–Dec 2020*
#UdacityKPITScholar: Achieved Scholarship for '*Self Driving Car Engineer*' nanodegree *May 2017–Dec 2018*