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| [icons8-email-open-32](mailto:winsgoyal.iitj@gmail.com)[icons8-linkedin-24](https://www.linkedin.com/in/w1nsg0yal/)icons8-phone-26[icons8-github-24](https://www.github.com/winsgoyal/)**WINS GOYAL**  +1 (352) 871-3689 | winsgoyal.iitj@gmail.com | [w1nsg0yal](https://www.linkedin.com/in/w1nsg0yal/) | [winsgoyal](https://www.github.com/winsgoyal/) | | | |
| **EDUCATION** | | | |
| **University of Florida,** Gainesville, Florida | | *Aug 2019–May 2021* | |
| *Master of Science - Computer Science, Herbert Wertheim College of Engineering* | | *GPA: 3.8/4.0* | |
| * *Courses:* Distributed Systems, Algorithms, Database Systems & Implementation, Network Data Streaming,   System Design, Machine Learning, Projects in Data Science, Computer Networks | | | |
| **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 | | | |
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| **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 webApp - ‘***Virtual Try-On***’ - to virtually try jewelry online. * Devised a***Data* C*entralization 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*. | | | |
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| **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*. | | | |
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| **PROJECTS** | | | |
| **Unix-based Network File System (NFS),** *Principles of Computer System Design* | | *Sep 2020–Dec 2020* | |
| * Emulated a fault-tolerant multi-server RAID-5 like RPC-based NFS with RSM locks for race-conditions. | | | |
| [[icons8-external-link-24](https://github.com/winsgoyal/Network-Data-Streaming-UF)](https://github.com/winsgoyal/Network-Data-Streaming-UF)**[Network Traffic Measurement](https://github.com/winsgoyal/Network-Data-Streaming-UF),** *Network Data Streaming* | | *Sep 2020–Nov 2020* | |
| * Quantified packet-loss and examined sampling on b- and c-sketches (Bloom Filters, Active Counters, CountMin). | | | |
| **Database Engine,** *Database Systems Implementation* | | *Jan 2020–Apr 2020* | |
| * Created a single-user Database Management System supporting SQL and relational-algebraic operations. * Developed modules like DB Files with heap and sorting, and lexer-parser for query evaluation and optimization. | | | |
| [icons8-external-link-24](https://github.com/foundationsmachinelearning-fa19/project-01-neo_digits)**[Ensemble Learning model for Optical Character Recognition](https://github.com/foundationsmachinelearning-fa19/project-01-neo_digits)** | | *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. | | | |
| [icons8-external-link-24](https://github.com/Rahul-Wahi/Tapestry-Peer-to-Peer-Overlay-Network)**[Tapestry-style P2P Network & Twitter Clone Simulation](https://github.com/Rahul-Wahi/Tapestry-Peer-to-Peer-Overlay-Network)** | | *Sep 2019–Dec 2019* | |
| * Implemented the paper on ‘***Resilient Tapestry Overlay***’ using DHTs with backpointers for a 10000-node net. * Analyzed ‘***Gossip Algorithm***’ on various network topologies of >8000 nodes. Evaluated twitting and querying on Twitter-clone by a 1000-actors net using Web-sockets, ETS Storage, and Phoenix framework. | | | |
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| **SKILLS** | | | |
| * **Languages / Web:***Python, C++, Java, Scala, Elixir, Ruby, Go, JavaScript ES6, React, Node, HTML/CSS* * **Frameworks:** *Django, Spring MVC, Docker, Junit, Kubernetes, REST, Flask, Gtest, DialogFlow, Jupyter* | * **Database:***MongoDB, PostgreSQL, Kafka, Spark, ETL, MySQL, Cassandra, Airflow, AWS S3, Google Cloud* * **ML / NLP:** *SpaCy, OpenIE, Numpy, Scikit, Pandas, NLTK, TensorFlow, PyTorch, OpenCV2, Matplot* | | |
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| **LEADERSHIP & EXTRA-CURRICULAR** | | | |
| * ***Mentor*** *(SwampHacks)*,annualhackathon at University of Florida * ***General Secretary***, *Design & Arts Society* at IIT Jodhpur, elected by 1000 students * ***Chief Organizer***, ***1st*** *Robotics Summer Camp* at IIT Jodhpur funding 8 interdisciplinary teams * ***1st*** Runner-up team in *Micro-Air Vehicle (MICAV)* national competition by DRDO & NAL | | | *2020*  *2013-2014*  *2013*  *2012-2013* |
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| **ACHIEVEMENTS** | | | |
| *Outstanding International Student Award* by UF for continued involvement & contributions in Univ.  *#UdacityKPITScholar:* Achieved Scholarship for ‘*Self Driving Car Engineer*’ nanodegree | | | *Nov 2020*  *May 2017* |