

TUSHAR GUPTA

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Summary

Self-motivated electrical engineering graduate with internships and project/work experience (five-plus years) in product development, test, and research along with data analytics and analysis, seeking full-time opportunities.

Education

Master of Science, Electrical Engineering

Aug 2018 - May 2020

Arizona State University, Tempe, Arizona

CGPA: 3.5/4.0

Courses: Neural Networks, Machine Learning, Feedback Systems, Linear/Non-Linear Systems, Multivariable Control Systems, Information Theory, Electric and Autonomous vehicles, and Sensors for health and mobile applications.

Bachelor of Technology, Electronics & Communication Engineering

July 2012 – April 2016

SRM University, Chennai, India

CGPA: 8/10

Skills

Design and Specification : Tableau, Salesforce, Snowflake, ETL, System Verilog, MS Office, Git
Programming : Python, SQL, PostgreSQL, SQL Server, MySQL, Oracle, MATLAB
Protocol : RS-232, RS-422, UART, SPI, I2C, CAN, LIN, Ethernet

Experience

Lead Software Engineer/Data Analyst, HCL America Inc., Client – Cisco

Jun 2021 – Present

- Working on creating reports and dashboards using **Salesforce Lightning and Tableau (Data Analysis)**. **Developing, modeling, migrating, integrating, and maintaining advanced reporting, analytics, dashboards, performing and documenting data analysis, data validation, and data mapping/design.** Worked on **Snowflake** environment and created **SQL** queries for preparing data extracts to be used in Tableau design and analysis.
- Working on **Python** for backend development. Using **Mongo DB** for retrieving and storing values from collections.

Electronics Engineer, Texas Capitol Semiconductor

Sep 2020 – May 2021

- Project development and training in **Python, PostgreSQL, Timescale**. Data acquisition from multiple data sources, from serial and analog to digital equipment. Developing and integrating multiple data acquisition formats, developing use-based data analytics for data driven procedures for manufacturing using **MySQL**.
- Serial coding and designing codes for starting and stopping the pumps and getting their parameter values with Python. Also using **PyQt5, Matplotlib and Grafana** for designing plots.

Software Engineer Intern, Sensagrate

Sep 2020 – Nov 2020

- Working on integration of Face mask detection and Facial recognition modules, provide database and executables for the functionality, and deploy it as a microservice.
- Notable python libraries used are **Pytorch, Caffe, MXNet, Facenet, Keras, and TensorFlow**. Backend tech stack **MongoDB/My SQL, Azure, and Docker**.

Systems Engineer, Infosys Technologies Private Limited

Jun 2016 – June 2018

- Extensively used the PEGA technology for improving business needs and deploying changes eight times faster than normal Java applications.
- Created sections, harnesses, activities, data transforms, flow diagrams and flowcharts for various company projects like Telstra and Deloitte to reduce cost and maintenance needs.

Design Intern, Wipro Limited

May 2015 – July 2015

- Designed and implemented SDN (Software Defined Networking) and ONOS (Open Network Operating System) techniques using various ports like 8181 for REST API and GUI, 8101 to access ONOS CLI and 9876 for intra-cluster communication and how one can transmit messages and signals via open networking.

Academic Projects

Task wait-time prediction for scheduling in Multicore architecture

Feb 2020 – April 2020

- Analyzed the life cycle of thread in **Linux CFS** scheduler and calculated its wait time in runnable state along with designing a **static data structure** in the kernel and using the sequential file API to collect data for WIFI TX/RX.

Design Verification using System Verilog

Feb 2020 – April 2020

- Designed and verified sort-six modules, counters, flip-flops, LIFO and FIFO modules, sequential multiplier, sequential divider, IIR and FIR filters etc., Improved the efficiency from **60 to 75 percent**.

Time-Series Forecasting using Multi-Layer Perceptron

Feb 2019 – April 2019

- Analyzed the non-linear version of static time series using multi-layer perceptron and dynamic programming. We were able to forecast the values up to **95 percent** accurate and precise.

Facial Attribute Editing Task using GANs

Aug 2018 – Dec 2018

- Implemented generative adversarial networks using neural-network data sets from **TensorFlow** and generated new facial attributes.