

SANJANA SURESH

Arlington, Texas

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Portfolio: sanjanasur.github.io

SUMMARY

Passionate Data Science graduate student with 3+ years' experience in enhancing Data transformation and building AI and advanced Machine Learning models for real-world problems. Proficient in deriving insights through visualization and statistical techniques to drive effective decision-making. Seeking an internship opportunity to leverage my skills in data-driven projects.

TECHNICAL SKILLS

- **Languages:** Proficient in Python (NumPy, Pandas, scikit-learn, TensorFlow, PyTorch, Tkinter, Flask) and R programming, SQL, Java, C++
- **Tools and Technology:** Tableau, Hadoop, Spark, AWS, MuleSoft, Anaconda, Splunk, Github, Microsoft Office Suite

PROFESSIONAL EXPERIENCE

Research Assistant

Present

University of Texas at Arlington Research Institute (Biomedical Technologies Division)

Texas, United States

- Optimised Actuator Pressure Prediction Algorithm using Bayesian Optimization techniques resulting in **accurate threshold setting** of wrist exoskeletons.
- Supported Research Scientist and Program Manager to oversee Data Analysis, Monitoring and evaluation of simulations of torque produced by wrists.

Senior Systems Engineer

Jan 2021 – Jul 2023

Infosys Limited

Chennai, India

- Handled large unstructured data from different systems through **Data Wrangling** and Orchestration techniques.
- Resolved persistent issue of data retrieval from SQL servers of long-term users using Chunking and Streaming techniques resulting in **retention of 500+ customers**.
- Analysed data metrics, **discovered and resolved high-impact bug** in multiple file path structures by applying Unicode Normalization, saving a potential **\$1.5M financial impact** to business.
- Instituted and developed a **business improvement dashboard** for Automated Tracking of Certificate Expiry using Tableau integrated with ServiceNow.
- Authored asset on the Infosys Cobalt Platform on Spark's ETL framework that served as **whitepaper to enable employees** across the organization.

Intern

May 2018 – June 2018

Schneider Electric

Chennai, India

- Hands-On training on Schneider's proprietary algorithm - OPTiCS that uses **Advanced Pattern Recognition (APR)** for early warning notification and diagnosis of equipment issues.
- Configured and developed models using Schneider's **Predictive Asset Analytics** to forecast fire alarms and downtime for gas industry and factories

AWARDS:

- Insta Award(Infosys Limited) in recognition of improving API response time **improving sales by \$400K** *Oct 2021*

DATA-DRIVEN PROJECTS

1. **Marketing Analytics of Trial program and Churn prediction of potential paid customers** *Nov 2023*
 - Gained insights on popular customers of E-Commerce AI tool and **identified most preferred product features** using Time Series Analysis and Heatmaps.
 - **Predicted prospective paid customers** using Logistic Regression with optimised statistical results during Model Evaluation
 - Analysed trends on User Engagement and **provided business recommendations** to convert trial program customers to paid subscription of AI tool.
2. **Student Shelter - Recommendation System for International students to find accommodation** *Sept 2023 - Dec 2023*
 - Pre-processed **real-time text data from social media** student group chats to create datasets of need and availability statuses.
 - Built a robust system using **Cosine Similarity and Collaborative Filtering techniques** to match students based on preferences.
 - Created Flask web application to enter accommodation requirements and **fetch contact details of best match** of students with shared spaces available.

3. **Safe Local Navigation of Visually Impaired with a haptic feedback device using SSD Caffe Model** *Dec 2019 - Mar 2020*
- Built and tested **working prototype of haptic strap** to help visually impaired navigate and create a virtual map of surroundings.
 - ML model was built using Convolutional Neural Network (CNN) for **object recognition of everyday objects** by training large real-time image datasets.
 - **Object Detection with vibration feedback** using LiDAR sensors integrated on RaspberryPi was built through Serial Communication of raw sensor data streams.

EDUCATION

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Master of Science in Data Science
University of Texas at Arlington
GPA: 4.0

May 2025
Texas, United States

- **Bachelor of Electrical and Electronics Engineering**
Anna University
GPA: 3.9 (University Rank 9)

Sep 2020
Chennai, India