

## WORK EXPERIENCE

### Lead Applied Machine Learning Researcher (AI Division)

Mar 2024 – Dec 2024

University of Arizona (Health Sciences, ASTEC Lab)

- Developed backend logic for YOLO v8 **machine learning model** with oriented bounding box detection to classify suture quality (e.g., good, loose, tight), achieving 92% accuracy and automating surgical training feedback.
- Designed a Python-based AI solution, utilizing **API's** like Deepgram's TTS and STT, OpenAI, Vapi, Zapier, Pipedream for enhanced patient-provider interaction.
- Created a **Flask and FastAPI** - based system enabling real-time voice modulation during AI agent speech interactions within 900ms.
- **Led a team of 8 researchers** to design, develop, and deploy a proof-of-concept model, managing end-to-end project lifecycle (**PLCM**) including beta testing and leading weekly meetings with **engineering team and executive board**.
- Presented ASTEC's ML and AI healthcare innovations at **iShowcase**, engaging 50+ researchers and professors.

### Data Analyst Intern (Remote)

Aug 2024 – Nov 2024

Tohands Pvt Ltd (Featured on **Shark Tank**)

- Spearheaded **retention strategy** by analyzing **D1, D7 and D30 cohorts**, driving improvements in customer engagement and loyalty.
- Analyzed **DAU** and **MAU** metrics to provide actionable insights, contributing to successful funding presentations and driving growth.
- Designed and developed **business intelligence** dashboards using **Tableau**, extracting and cleaning data from **AWS PostgreSQL** with Python, to facilitate informed decision-making.
- Performed in-depth analysis of 1600+ shop datasets to uncover patterns, detect anomalies, and eliminate outliers, ensuring data integrity and precise functionality of hardware.

### ML Engineer Intern

Jun 2024- Aug 2024

Mistral Solutions Pvt. Ltd.

- Engineered an advanced **gesture recognition model** using a RADAR chip, achieving 86% accuracy; performance enhanced by 30%, leading to improved operational efficiency within the user interface.
- Engineered a **low-latency data pipeline** on an SoC, increasing processing speed by 40% and reducing power consumption by 30%.

### Business Consultant (Business Analytics)

Oct 2020 — Aug 2023

Ernst & Young (EY)

- Extracted key business insights for 5 retail clients, enhancing data-driven decision making and boosting client growth by 25% during COVID-19 through strategic analysis.
- Spearheaded **product positioning review within OFD stands**, increasing purchases by 20% and improving store layout effectiveness.
- **Optimized** inventory decisions by analyzing 10,000+ customer transactions, enhancing stock management efficiency.
- Boosted **Net Promoter Score (NPS)** by 15% through user experience optimization and personalized promotions.
- Improved stakeholder decision-making by 20% with a comprehensive **weekly dashboard** tracking customer and colleague sentiment.

## PROJECTS

- **Customer Churn Analysis:** Power BI dashboard to identify factors for customer attrition and give methods to improve retention rates.
- **Supply Chain Analysis:** Analytics using Python (ETL), Snowflake & Power BI to create interactive dashboard with supply chain metrics.
- **Credit card fraud detection:** Built a credit card fraud detection model using regression modeling and neural network.
- **Disaster Fake Tweet Classification:** Leveraged LSTM & BERT transformers to classify tweets for disaster management.

PORTFOLIO : <https://shakirverse.com>

## CERTIFICATIONS

- IBM Python for Data Science, AI & Development
- Introduction to Machine Learning for Data Science

## SKILLS

**Programming Language:** Python, R, SQL, C, C++

**Data Analysis and Data Visualization:** Power BI, Pandas, Numpy, EDA, Matplotlib, Seaborn, Plotly

**Machine Learning & Statistics:** Scikit Learn, Tensorflow, Keras, Time Series Analysis, Hypothesis Testing

**Software Tools:** Jupyter, Git, GitHub, Advanced Microsoft Excel, MS Office, Jira

**Miscellaneous:** Statistical Modeling, Regression, Business Analytics, Data Mining, LLMs, Natural Language Processing (NLP)

## EDUCATION

### Master of Science in Data Science (GPA - 4.0/4.0)

University of Arizona – Main Campus

Aug 2023 - Dec 2024

### Bachelor of Technology in Electronics & Communication Engineering

Amrita Vishwa Vidyapeetham

Jul 2016 - Apr 2020

## AWARDS & EXTRACURRICULAR

- Won two **Exceptional awards** in Ernst & Young (EY) for personal excellence (Dec 2021 and Jun 2022).