

## EDUCATION

- **Master's Degree in Computer Science - University of Texas, Arlington [Fall 2021 to Spring 2023]** **3.80/4.0 GPA**  
[Courses: Artificial Intelligence, Data Mining, Data Analysis and Modelling techniques, Design & Analysis of Algorithms, Neural Networks, Machine learning, Advanced Database Systems-Cloud computing.]
- **Bachelor's Degree in Computer Science& Engineering - Mumbai University, India [Aug 2016 - Aug 2020].** **7.9/10 GPA**

## SKILLS

Programming Languages	: Python (TensorFlow, Open AI, Power Bi, scikit-learn), Java, Spring Boot, R, C/C++, JavaScript, PowerShell, Scala, Hive, Spark
Data Science	: NumPy, Pandas, Scikit-Learn, PyTorch, Beautiful Soup, Keras, TensorFlow, SciPy, Matplotlib, Seaborn, Data Pre-processing
NLP	: NLTK, GPT-3, BERT, LLMs (Large Language Models), LSTM (Long Short-Term Memory)
Machine Learning	: Data Mining, Statistical Analysis, Predictive Analysis, ML Algorithms, Predictive Modelling, Clustering, Deep Learning
Computer Vision	: OpenCV, Deep Neural Networks, AlexNet, CNN, FAST, NMS, SURF, SIFT, BRIEF, ORB, Autoencoders, PCA
Web technologies	: HTML5, CSS, JavaScript, Bootstrap, PHP, Flask, React, Laravel, React-Native, Node.js
Cloud Technologies	: AWS, Azure, Azure Databricks, Google Cloud
Database Technologies	: SQL, MySQL, PostgreSQL, MongoDB, Elastic Search, OpenSearch, Hadoop
Software	: Google Colab, Jupyter, Visual Studio, IntelliJ, Tableau, Power Bi, Weka, Alteryx, Docker, Postman, Jenkins, Kubernetes
Version controllers	: GitHub

## WORK EXPERIENCE

- Data Science Research Assistant, University of Texas at Arlington- Texas, USA** **May 2023 – Present**
- Conducting extensive research on Data Mining Techniques, statistics and Machine Learning algorithms behavior on different datasets.
  - **Analyzing and Studying** Generative AI, Large Language Models and its dependency on Transfer Learning on medical datasets.
  - **Leveraging** Code in Google Colab to support my research and conclusion.

- Software Developer Machine Learning Engineer Intern, Zimmerium Inc- Texas, USA** **May 2022-May 2023**
- **Leveraged Knowledge** in Git, **Python**, Flask, Docker, Kubernetes, Java (Spring boot), Postgres- SQL, Kafka, Zookeeper, Kibana, Postman, Agile (Scrum) Developer, TeamCity, Microservices Architecture, Gradle, RESTful Web Services, Jenkins.
  - **REST Services API Development**: Development of **microservices** using **Java** and **Spring Boot**.
  - **Upgraded a Backend Java Microservice** from Elasticsearch to OpenSearch which used Docker Services.
  - **Designed and developed** best-fit strategy which improved **data retrieval speed by 15%**.
  - **Conducted extensive unit testing** using **Junit5**, **Mockito**; identified and **fixed 30+ critical bugs**.
  - **Trained Prediction ML model and deployed with 96.42 % accuracy** detecting anomaly behavior in (CVE IDs) Common Vulnerability and Exposure Ids; targeting various App Market Categories for **fraudulent app detections**. Used XG Boost.
  - **Deployed Statistical ML model** using **Python + Flask**, to predict probability of CVE IDs (Security Flaws) in app market categories.
  - **Improved** existing decision-making model by **30% accuracy** using above two ML models.
  - **Applied Machine Learning Techniques** including k-NN, Naive Bayes, SVM, and Decision Forests Algorithms to cluster CVE Ids based on the probability occurrence in different App Market Categories in (IOS, android).
  - **Engineered a data pipeline in AWS S3**; used **AWS Quick Sight** to generate real-time dashboards resulting in **20% faster decision-making**.
  - **Implemented CI/CD practices and deployed code on virtual Git environments** to aid integration. ([Click here for more details](#))

- Machine Learning Engineer, Novanet Pvt. Ltd., India** **May 2019-Sept 2019**
- **Implemented** Web Data Scraping, Data Mining, Feature selection, Hyperparameter Tuning.
  - **Visualized** data using Tableau and **conducted** critical analysis and **optimization** of ML algos for better efficiency.
  - **Developed** Emotion Analysis (positive, negative) using NLP. **Used Tableau** to portray problem areas of product in graphs.
  - **Analyzed** customer's reaction and **improved** organization's product. ([Click here for more details](#))

## TECHNICAL PROJECTS

- Web Data Scraping & Data Analysis using Beautiful Soup, University of Texas at Arlington**
- Web Data Scraping using Beautiful Soup on Medical Claim Review by HealthFeedback.org. Conducted End to End Fact Checking on these medical Claim Reviews. ([Click here to view project](#))
  - **Result**: Upon entering Author's name, returns how likely author delivers "Correct" or "Incorrect" claim reviews with 88.90 % accuracy.
- Sarcasm Detection on Twitter Dataset**
- **Detected** positive, dissatisfied, and complex emotion (Sarcasm) in customer's reaction.
  - **Used** (BiLSTM-DNN) Bi-directional Long Short Term Memory Deep Neural Networks model.
  - **Implemented** Hyper-parameter Tuning using Grid-Search-CV with 95.86 % accuracy. **Publishing** IEEE Research Paper. ([Click here to access](#))
- CIFAR-10 image classifier using Convolutional Neural networks, University of Texas at Arlington**
- Built a Neural network model with multiple convolutional layers (CNN), cross-entropy function and SGC optimizer. Improved the performance by increasing number of layers and epochs. Accuracy ~ 65%
- Self-Driving Autonomous Car, University of Texas at Arlington**
- **Image Processing** using Convolutional Neural Networks. Used **Raspberry Pi and Arduino**.
  - **Developed** a RC car model with Alex Net- YOLO model which detects and drives within the limits of road lanes.
  - **Trained** using COCO dataset. **Detects** various traffic signals, pedestrians and **exhibits appropriate behavior**.

## EXTRA CURRICULAR ACTIVITIES

- Won "**Honorary Mentions Award**" at Student Computing Research Festival (**SCRF@DFW**) on UT Arlington Website. ([Click to view certificate](#))
- Won **1st prize** in Smart City Ideathon in Education and Employment Sector. **Was awarded** a cash prize by Gov of India.
- Won **3rd Place** at National Level **Machine Learning Hackathon** "ApScript Hackathon" conducted by IEEE.