

## PROFICIENCIES

- Data Science, Machine Learning, Artificial Intelligence(AI), Deep Learning, Computer Vision, Natural Language Processing (NLP)
- Exploratory Data Analysis, Predictive Analytics, Data Visualization, Data Engineering
- Python, TensorFlow, Keras, PyTorch, Scikit-learn, SciPy, OpenCV, Numpy, Seaborn, Pandas, AWS, SQL, Git, REST API
- Software Engineering, Agile Methodology, Production Systems

## EDUCATION

**Master of Science - Herbert Wertheim College of Engineering (University of Florida)**  
Computer Science - 3.90/4.00

**Aug 2021 - May 2023**

**Bachelor of Technology - Maharshi Dayanand University**  
Electronics & Communication Engineering - 7.56/10.00

**Jul 2009 - Jun 2013**

## PROFESSIONAL EXPERIENCE

**Graduate Research Assistant: University of Florida** (Stack: Python, SciPy, AWS, PostgreSQL, PyTorch)

**Jan 2023 - Present**

- Developed a near real-time analytics pipeline which ingests streaming acoustic data from edge devices using API Gateway and AWS Kinesis.
- Implemented real-time transformation of the streaming data in using AWS lambda and visualized using Grafana cloud.
- Created scientific computing packages for acoustic measurements from sound pressure levels.

**Data Scientist Intern: Roche** (Stack: Python, NLTK, Scikit-Learn, Tensorflow, MySQL)

**Jun 2022 - Dec 2022**

- Created a modularized supervised NLP solution to find hidden rebate clauses in large contract documents, helping the sales team resolve discrepancies of close to \$ 1M.
- Created an unsupervised text clustering solution to segregate thousands of support tickets, helping the support network identify the major issues with their products and improve the training for customer service agents.

**Data Scientist: Classic Informatics Pvt Ltd** (Stack: Python, Scikit-Learn, Tensorflow, GCP AutoML)

**Apr 2021 - Aug 2021**

- Proposed and developed a prototype computer vision system for land use classification from aerial images, helping the client cut down manual work of labeling images and at the same time save a considerable amount of productive time
- Built an object detection model for human detection fine tuned over thousands of images, helping the client accurately detect humans in images as a preprocessing step for human pose estimation

**Freelance: Machine Learning Engineer (NLP): Snap Pe** (Stack: Python, NLTK, Tensorflow, AWS, FastAPI)

**Dec 2020 - Mar 2021**

- Developed a text processing module for extracting shopping lists from text messages and processing them into digital shopping carts, saving clients from a substantial amount of manual work and enabled them to leverage the increased checkout throughput
- Implemented a fast product search functionality using Elasticsearch, drastically improving user experience by reducing search times by at least 75%

**R&D Intern (Machine Learning): Axelta Systems Pvt Ltd** (Stack: OpenCV, Tensorflow, AWS, MongoDB, Flask)

**Jan 2019 - May 2020**

- Assisted development of a fast deep neural network based face detection system to replace AWS Rekognition with an in-house solution which helped reduce the subscription fees for customers by almost 30%
- Developed an accurate face recognition and face clustering system hosted on AWS, helping businesses identify repeat customers and serve them better by reducing the checkout times
- Developed a solution to detect defects utilizing visual template matching and implemented a random forest algorithm for predicting the final quality of the product, automating the process defect detection which helped reduce the manufacturing rework by 85%

**Senior Software Engineer: Accenture** (Stack: SAP ABAP, Open SQL)

**Dec 2013 - Dec 2018**

- Handled technical design, build, unit testing and maintenance of OLTP applications in finance and logistics
- Worked in a cross- functional team, transforming business requirements into software applications

## PERSONAL PROJECTS

- Generated actionable insights from thousands of customer reviews scraped from Amazon to develop the ultimate smartwatch. This involved clustering and visualizing word embeddings trained on sentiments, utilizing PCA and T-SNE
- Efficient point cloud generation for dense 3D object reconstruction from 2d images.
- Developed a Neural Machine Translator for translating Spanish to English. Used a Seq2seq model based on an LSTM with Attention mechanism