

# Akhil Songa

Github: <https://github.com/akhilsonga> • Research Gate: <https://www.researchgate.net/profile/Akhil-Songa>  
Philadelphia, PA 19104 • [as5735@drexel.edu](mailto:as5735@drexel.edu) • +1 (267)-467-6401 • LinkedIn: <https://www.linkedin.com/in/akhil-songa-agnos>

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## EDUCATION

**DREXEL UNIVERSITY** – Philadelphia, PA (Sept 2022 – 2024), **GPA: 3.7**

*Sep 2022 – Jun 2024*

Master of Science in Data Science, Awarded a \$8,000 Dean's Fellowship | Data Acquisition & Pre-Processing, DSA, Data Analytics

**GITAM UNIVERSITY** – Visakhapatnam, India. 2018 – 2022, **GPA: 3.4 (8.17/10)**

*Aug 2018 – Apr 2022*

Bachelor of Computer Science Engineering | UNIX, Machine Learning, Probability & Statistics, Artificial Intelligence

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## EXPERIENCE

**INEURON** – Data Science Intern; Remote

*Dec 2021 – May 2022*

- Led Alzheimer's disease research project to develop an algorithm that classified MRI scans into four categories: mild, very mild, moderate, and no Alzheimer's, using TensorFlow and two Convolution 2D layers with Max pooling2D
- Achieved an impressive accuracy of 94.59% and a validation loss of 0.0290 with a sensitivity of 93.42% and a specificity of 96.76%, validating the algorithm's effectiveness in the diagnosis and treatment of Alzheimer's disease
- Conducted further research to improve Alzheimer's disease diagnosis accuracy by using alpha-fold 2-like algorithms to predict beta-2 amyloid protein structures, resulting in a remarkable 20% improvement compared to conventional methods
- Resulted study yielded an F1 score of 0.90, demonstrating the reliability of the algorithm in detecting Alzheimer's disease and improving the prognosis for patients

**TECHNOCOLABS SOFTWARE** – Data Science Intern; Remote

*Sep 2021 – Nov 2021*

- Leveraged CrunchBase datasets to predict the acquisition status of startups by analyzing their financial information, thereby enhancing the investment decision-making ability of investors to determine if the company will be acquired or shut down
- Through the use of machine learning algorithms to analyze these datasets, the project successfully forecasted the acquisition status with 89% accuracy, allowing investors to make informed decisions on investing in a particular startup
- Conducted Exploratory Data Analysis (EDA) and data pre-processing to transform the datasets and make them suitable for training a regression-based machine learning model
- Efficiency of the model is improved by applying multiple techniques such as hyperparameter tuning, feature selection, and model ensemble, resulting in a 30% increase in accuracy

**GITAM UNIVERSITY** – Research Assistant; Visakhapatnam, India

*Jan 2021 – Aug 2021*

- Served as Dr. Bhavani's research assistant to help a research team analyze COVID-19 data to produce a report for the local government by providing critical information to make critical decisions about COVID 19
  - Leveraged nearly 20 diverse data visualization techniques, such as Tree Maps, Box Plots, and Bubble Charts, to analyze and communicate COVID-19 data to government officials
  - Created visually stunning dashboards using Tableau, allowing the research supervisor to explore and analyze the data in real-time, resulting in a 35% increase in the speed and accuracy of data-driven decision
  - Presented our insights in a research paper titled "A Comparative Study of Various Data Visualization Techniques" this article received a citation from IEEE Researchers with over 800 reads and an Interest Score, higher than 93% of all 2021 publications
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## PROJECTS

- Developed an API for scraping multiple websites dynamically to create a custom match, player stats, and player image dataset using beautiful soup and selenium and deployed it in Python anywhere and received a GPA of 4.0 (DSCI-511)
  - Created a bot which downloads videos from Instagram, creates a collage, and upload it to YouTube by using selenium, python, YouTube Data API, and OAuth 2.0 (Google Cloud API Console)
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## PUBLICATIONS

- "A Comparative Study of Various Data Visualization Techniques using COVID-19 Data set"(August 2021 Issue - IRJET)
  - "The Societal and Transformational Impacts of Data Science" (September 2021 Issue - IJERT)
  - "Vehicle Number Plate Recognition System Using TESSERACT-OCR" (April 2022 Issue - IJRASET)
  - Research-Interest Score is of 89% (2021-2023) with over 2,482 reads and received two paper citations from IEEE researches
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## TECHNICAL KNOWLEDGE

**Programming Languages:** Python, SQL, Java, C, C++, Object-oriented programming (OOP), R, HTML, CSS, Java Script

**Data Bases:** SQL, MySQL, Oracle SQL, RDBMS

**Cloud:** Azure, AWS, Google cloud, Snowflake

**Data Science Knowledge:** Pandas, NumPy, Scikit-Learn, Tableau, PowerBI, Seaborn, bash, Regression models, GLM, Logistic Regression, GBM, Random Forests, Experimental Design, Classification models, Spacy, YOLO, OpenCV, NLP, NLTK, Keras, TensorFlow, Pytorch, PySpark, Spark, CUDA, Sentiment analysis, Gradient Boosting, Cluster Analysis, Text Mining, Plotly, Artificial Neural Network, Convolutional Neural Network, Long Short-Term Memory, Microsoft Excel, Classification and Regression Trees (CART)

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