

AKHILA PETNIKOTA

+1 (469) 861-8714 | axp210228@utdallas.edu | [linkedin.com/in/akhila-petnikota/](https://www.linkedin.com/in/akhila-petnikota/) | github.com/AkhilaPetnikota

SUMMARY: A Computer Science graduate experienced in optimizing real-time data processing and improving workflows to enhance performance and business outcomes.

EDUCATION

Master of Science, Computer Science (Data Science) The University of Texas at Dallas	Aug 2022 - May 2024 GPA: 3.4 / 4.0
<ul style="list-style-type: none">Data Structures and Algorithms, Artificial Intelligence, Computational Geometry, Machine Learning, NLP	
Bachelor of Technology (ECE), Electronics & Communications Reva Institute of Technology - Bengaluru	Aug 2017 - June 2021 GPA: 9.05 / 10
<ul style="list-style-type: none">Data Mining, Computer Architecture & Operating Systems, Digital & Analog Electronics, Network Communication	

TECHNICAL SKILLS

<i>Languages</i>	: C/C++, Python, Java, SQL, PL/SQL, Javascript, Unix, Frontend(PHP, HTML, CSS, React)
<i>Tools and Technologies</i>	: Hadoop, Spark, Snowflake, Django, PySpark, MLflow, Jenkins, GitLab, AWS, Azure
<i>Skills</i>	: ML (Sci-kit Learn, TensorFlow, PyTorch), Statistical Modeling, Data Visualization (Tableau, Power BI), Strong foundational knowledge in TCP/IP, HTTP through coursework & project
<i>Libraries/Frameworks</i>	: NumPy, SciPy, Pandas, Spacy, NLTK, BERT, MySQL, PostgreSQL, MongoDB, Cassandra

PROFESSIONAL EXPERIENCE

Data Research Analyst Python, SQL, Statistics, ML [link] <i>Community Dreams Foundation (USA)</i>	July 2024 - Present Dallas, TX, USA
<ul style="list-style-type: none">Analyze trends and optimize operations, providing actionable insights for improved decision-making.Present findings to leadership, driving operational and pricing improvements.	
Teaching Assistant C++, Unix Systems programming <i>The University of Texas at Dallas</i>	June 2023 - May 2024 Dallas, TX, USA
<ul style="list-style-type: none">Guided students through programming concepts, assisting with hands-on projects and real-time problem-solving.Enhanced student understanding of system programming and software development concepts.	
Application Development Associate Python, SQL, Docker, AWS <i>Accenture Solutions Private Limited(India)</i>	July 2021 - July 2022 Bengaluru, Karnataka, India
<ul style="list-style-type: none">Optimized data processing workflows, improving accuracy by 20% and reducing processing time by 30%.Developed scalable solutions, enhancing performance and streamlining CI/CD to reduce maintenance costs.Enhanced data retrieval, boosting performance by 40% and improving pipeline efficiency for large datasets.	
Software Developer Intern Java, Data Structures [link] <i>Infosys Private Limited(India)</i>	Jan 2021 - June 2021 Bengaluru, Karnataka, India
<ul style="list-style-type: none">Designed high-performance data structures, improving system efficiency and scalability.Developed custom algorithms to enhance accuracy; achieved top score in InfyTQ exam at Reva University in 2021.	

SELECTED PROJECTS

Computational Geometry - 3D Mesh Generation Library in C++ [link]	Apr 2024 - May 2024
<ul style="list-style-type: none">Implemented 2D/3D mesh generation algorithms in C++, supporting multithreading and exporting to .ply files.Utilized Python with Open3D for visualizing mesh results, with plans for future CUDA/OpenCL optimizations.	
Spark Machine Translation Apache Spark, ML, Text Processing, Scalable Data [link]	Jan 2023 - Apr 2023
<ul style="list-style-type: none">Developed a large-scale machine translation system using Apache Spark, implementing language detection and translation across multilingual datasets.Utilized custom tokenization, vectorization, and Spark ML for efficient text processing and scalable translation.	
Fake News Detection in Social Media NLP, Machine Learning, TF-IDF [link]	Jul 2023 - Nov 2023
<ul style="list-style-type: none">Developed a machine learning model using Natural Language Processing (NLP) to detect fake news.Preprocessed social media data, applied TF-IDF for feature extraction, and trained multiple models, with Support Vector Machines achieving the highest accuracy.	
Stock Price Prediction for Amazon Python, Machine Learning [link]	June 2023 - Aug 2023
<ul style="list-style-type: none">Developed a (RNN) model for time series prediction to forecast Amazon (AMZN) stock prices.Evaluated model performance using Root Mean Squared Error (RMSE) to quantify prediction accuracy.	
Smart trolley with Social Distance Monitoring IOT, Python, Web Technologies, HTTP	Jan 2021 - May 2021
<ul style="list-style-type: none">Designed a smart shopping trolley with SBC and PHP, integrating Google Text-to-Speech for real-time notifications and MySQL for product tracking and payment processing.	

CERTIFICATES: Python Specialization[\[link\]](#), SQL Certification [\[link\]](#), Java Specialization[\[link\]](#)

PUBLICATION: Presented "SMART TROLLEY WITH SOCIAL DISTANCE MONITORING" at ICECIM 2021[\[link\]](#)

Leadership: Technical Head at FORCE, ECE department forum; led community growth, awarded a merit scholarship for academic excellence.