

Nikhil Das Karavatt

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PROFESSIONAL EXPERIENCE

Bank of America (Data Scientist Intern Capstone)

January 2024 – Present

- Researching a proprietary deep learning model to achieve a 95% recall rate in identifying **deepfake** during virtual conference.
- Utilized GANs within DeepFace Live, crafted a custom set of deepfake videos to enhance our detection model's robustness.

University of Texas at Arlington Research Institute (Research Assistant)

September 2023 - Present

- Spearheaded an innovative project developing an [AI-driven golf swing training system](#), leveraging technologies like **data engineering**, computer vision, and specialized body motion tracking with OpenCV and OpenGL.
- Elevated body key points capture **efficiency by 100%** through customizing the API for analysis.
- Optimized video processing for a 60 FPS frame rate, enabling smoother data analysis and real-time insights.
- Heightened performance with camera orientation integration, achieving 15% better tracking accuracy and spatial understanding.
- Applied Dynamic Time Warping (DTW) to analyze swings, providing a quantitative evaluation of swing similarities and differences.

Accenture (Senior Analyst)

December 2020 - August 2022

- Executed scrupulous pre- and post-upgrade assessments for applications during **data center migration**, and **database upgrades** (Oracle and Teradata), contributing to a successful transition with 98% stability and reliability.
- Orchestrated Autosys and event handler deployments using Jenkins within the CI/CD framework, contributing to the client's revenue growth, such as the **9.52% increase to \$51.761B** in 2022.
- Performed weekly EPOS transaction audits, resolving 15+ anomalies with root cause analysis and A/B testing across environments.

Accenture (Analyst)

July 2018 - December 2020

- Directed comprehensive data analysis utilizing supply chain systems, supported process improvement initiatives and collaborated with cross-functional teams to bolster decision-making processes, contributing to a **\$50 million revenue growth**.
- Engineered code optimizations improved **supply chain** data accuracy in ORMS and ORWMS, reducing production bugs by 20%.
- Conducted 10-20 **SQL** operations weekly, deftly executing real-time data report queries to optimize inventory management.
- Crafted and deployed interactive **Power BI** dashboards to monitor **KPIs** like change failure rate, achieving a 20% reduction in incidents.

Accenture (Associate Software Engineer)

December 2016 - July 2018

- Leveraged Blue Prism (RPA) for end-to-end automation of ITSM incident reviews, estimating to **\$400,000 revenue savings annually**.
- Generated **Tableau** dashboards to monitor KPIs like the Supplier Defect Rate to establish data-driven vendor selection.
- Led 10-15 weekly Agile deployments, including Autosys, Event handler, Informatica workflows, Oracle Forms and Reports, and OpenShift deployments, optimizing data infrastructure with a DevOps mindset.

CERTIFICATIONS

- Google Data Analytics Professional Certificate
- AWS Certified Developer- Associate

November 2023

August 2020

PROJECTS

- [Nikotronics Electronic Product Assistant Chatbot](#) | GenAI, LLM, NLP, OpenAI API, Flask, HTML, CSS, JavaScript, AWS EC2 | [GitHub](#)
Created a Flask-based chatbot using OpenAI's GPT 3.5 to offer instant assistance and product information for electronics. Enabled real-time communication and product information retrieval across 5-10 categories for a user-friendly experience. Ensured engaging interaction and accurate responses, seamlessly transitioning to human assistance, hosted on AWS EC2 for reliability
- Search Engine Implementation** | Python, NLP, NLTK, TF-IDF, Cosine Similarity | [GitHub](#)
Developed a Python-based search engine with integrated Natural Language Processing (NLP) capabilities. Leveraging NLTK, the engine efficiently tokenized, removed stopwords, and performed stemming for enhanced text analysis. Utilizing TF-IDF vectors and cosine similarity, the engine provided accurate query answers. Demonstrated proficiency in Python, NLP, and information retrieval techniques.
- GraphXplore: Unveiling Insights in DBLP Dataset** | Python, NumPy, Pandas, Matplotlib, Regex, Networkx | [GitHub](#)
Deconstructed a large DBLP dataset by data visualization, focusing on authors, references, and venues, emphasizing Python libraries for graph analysis. Crafted 3 essential graphs to uncover patterns and connections within academic collaboration and publication. Studied graph traits such as nodes, edge density, and connectivity to expose insights into academic networks and citation patterns.

EDUCATION

Master of Science in Data Science, *The University of Texas at Arlington, United States* | GPA 4.00

August 2022 - May 2024

Bachelors of Technology in Mechanical Engineering, *Vellore Institute of Technology, India* | GPA 3.70

July 2012 - May 2016

SKILLS

Python, SQL, PL/SQL, Unix, Linux, DevOps, Forecasting, Machine Learning Algorithms, MySQL, Docker, Seaborn, Scikit-Learn, MongoDB, Hadoop, Statistics, Neural Networks, Tkinter, Streamlit, Deep Learning, Flask, MLflow, Airflow, Snowflake, Tableau, NLP, Data Warehouse, Advanced Excel (VBA, VLOOKUP, Pivot Tables), ANOVA, Jira, ETL, Predictive Analytics, TensorFlow, Data Mining, Supply Chain Management.