

# VENKATA BASANTH CHALLAPALLI

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Motivated IT graduate with hands-on experience in software development, data analytics, and machine learning. Proven success in cybersecurity threat detection, geospatial analysis, and medical imaging projects. Skilled in Python, SQL, PySpark, and visualization tools. Passionate about solving real-world problems through data-driven insights and scalable solutions.

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## SKILLS

- **Technical Skills:** C, Python (pandas, matplotlib, NumPy), Database Management system, Core Java, MySQL, PowerBI, Object oriented Programming(OOPS),Data Structures.
- **Techniques:** Data Augmentation, Segmentation, Predictive Modeling, Classification, Loss Function, Optimization, Statistical analysis, Image Analysis, ETL, Automation, Visualization, Data Modeling, PySpark, Parallel processing.

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## EXPERIENCE

**KENNESAW STATE UNIVERSITY- Department of Economics, Finance, and Q.A**

**Jan 2025- May 2025**

**Geospatial Data Analyst – Florida Coastal Cities Mapping Project(GRA)**

- Worked on a project how climate risks affect house pricing.
- Fetching Realtime costal climate data from webscrapping coordinates of florida cities with requests and BeautifulSoup, transformed ERA5 NetCDF4 climate data with Python, pandas, and Panoply to time series format.

**BIST TECHNOLOGIES Pvt Ltd(India)- Data Science Intern ([link](#))**

**Mar 2024 – May 2024**

**Data Augmentation based on Generative Adversarial Network for Endoscopic Image classification (Deep learning) :**

- Gained an 95.2% accuracy results by involving Data augmentation and segmentation techniques to the existing medical image analysis with standard GAN algorithm- GANs help with data shortage and class imbalance in endoscopic datasets by producing realistic synthetic pictures.
- Increased efficiency of the system by optimizing it based on GAN based augmentation on several CNN models.

**BLACKBUCKS ENGINEERS Pvt Ltd- Machine learning Intern ([link](#))**

**Jun 2022 – Sep 2022**

**Sign Language Classification**

- Built a hand gesture classification system, engaging in system analysis, test strategy development, test case execution, and defect reporting.
- Designed and rigorously tested sign language classification system using ML techniques(supervised learning model)..
- Collaborated with QA engineers to enhance data analysis efficiency and met the quality standards throughout the software development lifecycle.

## KPMG

**Data Analyst Intern**

- Conducted rigorous data quality assessments and analyzed bike sales in year 2022 and 2023.
- leveraged data visualization through charts, graphs and maps in tableau software.
- Delivered actionable insights, contributing to strategic decision-making processes and client success.

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## PROJECTS

**Large Scale Cyber Security threat detection system[Cyber security-Deep learning/ML] : ([link](#))**

- Developed scalable cybersecurity threat detection models on the UNSW-NB15 dataset using PySpark(parallel processing) and advanced ML algorithms (Gradient Boosting, DQN), achieving up to 96% accuracy and significantly reducing false positives; implemented distributed preprocessing, feature selection, and real-time adaptability for large-scale network traffic analysis.

**Sales Insights-Brick motor business[Power-BI—SQL]: ([link](#))**

Engineered a dynamic Power BI dashboard to analyse sales trends and identify growth opportunities, integrating business drivers into the solution to deliver actionable insights and drive business performance.

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## CERTIFICATIONS

- NXT wave Certification on” Build your own static website using HTML,CSS,Bootstarp”
- Microsoft Azure Fundamentals Certificate
- Complete SQL Bootcamp from Udemy
- 2023 Data Visualization in Tableau Python from Udemy

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## EDUCATION

KENNESAW STATE UNIVERSITY - **Master of Science in Computer Science**

April 2026

NRI INSTITUTE OF TECHNOLOGY, India - **Bachelor of Information Technology**

May 2024