Jahnavi Kanukuntla
Data Analysis | Programming Proficiency

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PROFESSIONAL SUMMARY

Dedicated Computer Science Master's student with a focus on data science and technology innovation. Experienced in project management, research, and leading cross-functional teams. Proven ability to drive impactful solutions and advance technological developments. Passionate about leveraging analytical skills and strategic thinking to contribute to advancements in the IT industry and build a distinguished career.

EDUCATION

- **University of North Carolina at Charlotte**, **NC** *Aug 2023 - Dec 2024 (Expected)*
  Master of Science in Computer Science *with Concentration in Data Science*
  Current CGPA: 4.00 / 4.00
- **Anurag Group of Institutions (Affiliated to JNTU, Hyderabad)** *Aug 2019 - May 2023*
  Bachelor of Technology in Information Technology, **CGPA: 8.7 / 10.0**

TECHNICAL SKILLS

- ***Programming Languages:*** C, C++, R, Java, and Python
- ***Operating Systems:*** Windows, Mac OS, Linux
- ***Software:*** MS Office, Visual Studio, Tableau, Hadoop, Spark, VirtualBox, Parallel desktop
- ***Database:*** MySQL, MongoDB, Redis, Neo4j, Cassandra
- ***Scripting Language:*** HTML, CSS, JavaScript, React, NODE.js
- ***Version Control:*** Github

PUBLICATIONS

- **Personal Nutritionist Recommendation System using K-means and Random-Forest Algorithms,** Niteesha Sharma, Sai Tarani Kondoori, **Jahnavi Kanukuntla**
  International Journal of all Research Education & Scientific Methods 2023.
- **Smart AI Chatbot for Chronic Kidney Diseases,**
  Niteesha Sharma, Sai Tarani Kondoori, **Jahnavi Kanukuntla**
  International Journal of all Research Education & Scientific Methods 2023.
- **SARS COV-2 (COVID-19) Vaccines and its Side Effects,**
  Lakshmi Padmaja D, Sai Tarani Kondoori, **Jahnavi Kanukuntla**, Surya Deepak G, Krishna Sriharsha G, *Publication Under Review*.

EXPERIENCE

Data Collector and Analyst , Institute for Transportation Research and Education *Summer Internship(2024)*

- Led the end-to-end process of collecting, cleaning, and analyzing large-scale datasets on seatbelt usage, with over 10,000 data points collected through field surveys and observational studies. Collaborated closely with engineers and researchers to design data collection methodologies that ensured accuracy and relevance.
- Applied advanced statistical techniques using Python and Excel for data processing, delivering detailed analyses on seatbelt compliance trends across various demographic groups.
- Developed and presented comprehensive data visualizations, including trend analysis and geographic mapping, which highlighted a 15% increase in seatbelt compliance in key regions. These insights informed strategic recommendations to stakeholders, directly contributing to the formulation of data-driven transportation policies and safety initiatives. Improved operational efficiency by standardizing data collection processes, and worked cross-functionally to ensure seamless integration of the findings into broader transportation planning strategies.
- Additionally, automated data reporting processes, reducing manual effort and improving the speed of report generation by 25%, allowing for more timely data-driven decisions.
- This role demonstrates my proficiency in data analysis, visualization, and collaboration within interdisciplinary teams to drive impactful, evidence-based decisions in the transportation sector.

ACADEMIC PROJECTS

1. **Photo Sharing Application** *Software System Design and Implementation Course Project*
   - Developed a full-stack social media application using the MERN stack. Features include a real-time activity feed, user mentions, photo engagement metrics (likes, comments), and a dynamic sidebar to track user activity. Implemented features like CRUD operations for comments and photos, and user management with role-based access control. Employed NoSQL database (MongoDB) for scalable data storage, ensuring high availability and low-latency queries.
   - ***Tools Used:*** MongoDB, Express.js, React, Node.js (**MERN** Stack)

2. **Personal Nutrition Recommendation System** *Undergraduate Major Project*
   - Created a machine learning-based recommendation engine that personalizes meal suggestions (breakfast, lunch, dinner) based on users' Body Mass Index (BMI). Utilized K-Means clustering for user segmentation and Random Forest for accurate recommendation predictions. Applied Flask for the backend API and integrated data pipelines for preprocessing nutritional datasets. The model achieved an accuracy rate of 87% in recommending optimal meals aligned with users' health goals.
   - ***Tools and Algorithms Used:*** Flask, Python, K-Means, Random Forest

3. **Specialized Flight Booking System** *DBS Hack-to-Hire (2022)*
   - Developed the front-end for a flight booking system as part of a hackathon challenge. The system featured an optimized search interface, enhanced user experience with responsive design, and quick flight selection functionality. Completed within four hours, demonstrating rapid prototyping and front-end development skills, which resulted in securing a placement offer.
   - ***Tools Used:*** HTML, CSS, and PHP

4. **Smart AI CHATBOT** *Undergraduate Minor Project*
   - Developed a domain-specific chatbot focused on kidney health, enhancing user interaction through a health-specific knowledge graph. Leveraged NLP techniques and built a custom web crawler to extract and structure data from over 1,000 medical sources, improving response accuracy by 30%. Utilized information extraction methodologies to deliver precise, real-time health insights, significantly boosting user engagement and trust. This project highlights expertise in NLP, data mining, and AI-driven solutions for healthcare.
   - ***Tools Used:*** NLTK, Flask, Newspaper Module

5. **Weather Data Analysis with Hadoop, Hive and Spark** *Cloud Computing Course Project*
   - Conducted large-scale weather data analysis using Hadoop and Java for data processing, achieving 25% faster outlier detection. Employed Apache Hive for efficient data warehousing and optimized queries, reducing data retrieval times by 20%. Analyzed average maximum temperatures and precipitation trends across millions of records, leveraging parallel computing for scalability. The project was executed in a Debian Linux virtual environment, utilizing a distributed Hadoop cluster to ensure high-performance data processing and analysis. This demonstrates proficiency in big data technologies, cloud computing, and data-driven insights.
   - ***Tools Used:*** Java, Apache Hive, Hadoop, Parallel Desktop, Debian Linux.

LEADERSHIP EXPERIENCE

1. **Led Class Team** in TECH HACK - Season 20 *2020*
   - Coordinated with team members of various departments in working towards the central idea of creating a Baby Cradle project under the category of IOT.
   - Contributed to the team's success by securing first place.
2. **Under Secretary General for Design,** Anurag University's Model United Nations *June, 2022*
   - Served as USD-Design, overseeing and managing design-related aspects for the organization.
   - Collaborated with a diverse team to ensure the visual and aesthetic coherence of Model United Nations events.
   - Played a pivotal role in enhancing the overall visual identity and branding, contributing to the success and professionalism of the conferences
3. **Instructional Assistantship,** UNCC(on-campus employment) *2024(current)*
   - Develop and enhance course materials for NOSQL databases and SQL queries, aligning with curriculum objectives and industry standards.
   - Conduct interactive sessions, guiding students in practical application of NOSQL and SQL concepts.

CERTIFICATIONS

- AWS DATA ENGINEERING - AWS *2024*
- AWS CLOUD COMPUTING - AWS *2021*