Aditya Kumar

+1 (770) 706-2214 | akumar978@gatech.edu | linkedin.com/in/aditya-kumar-gatech | github.com/aditya2512

Education

Georgia Institute of Technology — Atlanta, GA
Master of Science in Computer Science GPA: 3.85 / 4.0 — *Aug 2023 - May 2025*

CMR Institute of Technology — Bangalore, India
Bachelor of Engineering in Information Science GPA: 8.76/10.0 — *Aug 2016 - May 2020*

Experience

Allstate India Private Limited — Bangalore, India
Data Scientist — *Feb 2021 – Aug 2024*

- Processed and analyzed large datasets (>10GB), identifying patterns and trends to optimize mainframe data usage, improving business operations and reducing downtime.
- Built predictive models using Python to forecast organizational storage usage based on periodic datasets, enabling informed decision-making on resource scaling and decommissioning.
- Designed algorithms for performance evaluation of chatbot responses, leveraging metrics like similarity scores and confidence levels, showcasing data analysis and summarization skills.
- Automated critical services with focus on parallelized processes, improving service time efficiency and availability, reducing MTTR and saving significant operational costs.

Allstate India Private Limited — Bangalore, India
Data Science Intern — *Oct 2020 – Feb 2021*

- Cleaned, summarized, and processed large-scale Networks data, detecting data quality issues and outliers for improved decision-making.
- Built and managed MySQL databases, creating scripts to extract, clean, and transform data for analytics-ready formats.
- Developed algorithms to calculate query similarity metrics, enhancing data retrieval efficiency and system performance.

Projects

Multilingual Medical Diagnosis System — Sept 2024 - Dec 2024

- Designed and implemented a pipeline for multilingual medical diagnosis, processing Hindi inputs (JSON or paragraph) and delivering accurate diagnoses in Hindi.
- Built an ensemble model leveraging Mistral AI, Phi 3.5, and Llama 3.2-1B with a voting mechanism to generate reliable medical diagnoses in English.

Multimodal Disease Diagnosis and Treatment — Sept 2024 - Dec 2024

- Developed a MultiModal pipeline integrating echocardiographic videos (DICOM files) and patient clinical data (7GB) to predict Right Ventricular Ejection Fraction (RVEF) and cardiac condition severity.
- Implemented and evaluated multiple architectures, including Random Forest Regression, Transformer-based models, and Temporal CNNs, achieving the best performance with CardiacCycleRNN.

E-Commerce Store Demand Forecasting — Aug 2023 - Dec 2023

- Analyzed large-scale datasets to predict demand using Python and neural network models, integrating external factors such as climatic and economic trends.
- Leveraged scikit-learn and TensorFlow to optimize models for predictive accuracy and scalability.

TECHNICAL SKILLS

Programming: Python (Pandas, NumPy), SQL (PostgreSQL, MySQL), PyTorch, TensorFlow, CUDA Python, R
Software: Tableau, Power BI, Git, Bash, Linux, Docker, AWS, OCI, Terraform, ServiceNow , Confluence
Coursework: Big Data Analytics, Data and Visual Analytics, Data Structure and Algorithms, Data Handling and Visualization, Machine Learning, Computer Vision