

# ANEESH KRISHNA

Buffalo, NY | aneeshkr@buffalo.edu | [Linkedin](#) | [Github](#) | [Portfolio](#)

## EXPERIENCE

### Graduate Research Assistant

University at Buffalo

Aug 2024 – Present

Buffalo, NY

- Enhanced threat detection through the integration of BERT and GloVe models, achieving 99.98% accuracy and a 1.0 F1 score in context-aware interpretation of network traffic patterns and log anomalies.
- Improved attack vector classification accuracy by 20% using packet analysis across all 7 OSI layers, extracting advanced features from log sequences for real-time threat detection.
- Achieved 98.55% accuracy in anomaly detection using a Naive Bayes model with TF-IDF Vectorizer, optimizing feature extraction and classification for system log analysis and network security.

### Data Migration Analyst

Infosys Ltd

Oct 2020 – Apr 2023

Remote, India

- Designed and automated Power BI dashboards and reports to track data migration progress across 90+ sites, using DAX for calculations and providing real-time analytics to stakeholders for data-driven decisions.
- Coordinated User Acceptance Testing (UAT) of reports to ensure a seamless transition into production, enhancing reporting accuracy by 40% through advanced data visualization techniques and stakeholder feedback integration.
- Streamlined SharePoint site redesign processes by utilizing PowerShell and SQL based scripts, significantly reducing manual intervention by 50% and increasing deployment efficiency for large-scale data migration projects.
- Led a team of 5 engineers in automating complex data workflows and modernizing legacy SharePoint sites, improving data processing efficiency by 60% through the integration of SPFX, Azure Devops and optimized data pipelines.

## PROJECTS

### Cricket Statistics LLM Chatbot | Published Website (~100 hrs) - [Site](#) / [GitHub](#)

Python, GenAI, Streamlit, Firestore

- Engineered an interactive Streamlit-based chatbot utilizing Google's Gemini-Pro LLM model to generate and execute pandas code for cricket statistics analysis, enhancing user engagement with complex data.
- Improved AI model accuracy by 25% as measured by user feedback scores by implementing a comprehensive feedback system using Google Firestore and creating a custom fine-tuning pipeline for the GenAI model.
- Expanded the database by 30% through ESPNcricinfo web scraping using tools like BeautifulSoup and snowflake, enriching player information for comprehensive cricket analysis.
- Reduced application deployment time by 50% as measured by time-to-market metrics by leveraging Google Cloud Platform services to seamlessly integrate AI, database, and web technologies in a cloud-based environment.

### Optimizing Healthcare Facilities | Team Project (~60 hrs) - [GitHub](#)

Python, Optuna, Seaborn, scikit-learn

- Accomplished 90% size reduction by data-cleaning, encoding (to JSON), and performing feature selection on a large dataset, leveraging libraries such as pandas, polars, scikit-learn.
- Extracted healthcare insights, spotlighting gender and age-specific trends in diseases, post-operative complications, and hospital length of stay by performing EDA with Plotly, Matplotlib, and Seaborn libraries.
- Built predictive models for patient length of stay, attaining an 82% accuracy through Gradient Boosted Trees after Bayesian hyperparameter optimization using Optuna.

### Sports Analytics of Cricket World Cup | Personal Project (~40 hrs) - [Article](#)

Python, Pandas, Seaborn, Tableau

- Cleaned and preprocessed over 1 million records from ESPNcricinfo of all T20 matches (2015-2023) using Python and Pandas, implementing ETL pipelines to enhance data quality for further analysis.
- Extracted and analyzed stadium statistics and team performance data for the 2024 T20 World Cup using Tableau, Matplotlib, and Seaborn, providing strategic insights and detailed team profiles.

### British Airways Review Dashboard | Personal Project (~10 hrs) - [Dashboard](#)

KPI, ETL, Tableau

- Developed an interactive Tableau dashboard analyzing 300+ reviews of British Airways' services, focusing on cabin staff performance, aircraft efficiency, and traveler feedback, implementing ETL processes to extract insights into key KPIs related to customer satisfaction.

### Adidas USA Sales Dashboard | Personal Project (~10 hrs) - [Dashboard](#)

KPI, ETL, Tableau

- Designed a dynamic Tableau dashboard to track Adidas USA sales performance, focusing on month-over-month growth, retailer contributions, and regional sales, driving actionable insights for strategic decision-making.
- Enhanced business forecasting by visualizing sales trends across products and regions, leveraging custom calculations, interactive maps, and real-time data updates for more precise insights.

### Loan Risk Prediction Model | Team Project (~40 hrs) - [GitHub](#)

Python, Seaborn, PostgreSQL

- Performed data preprocessing on initial Excel datasets, employing NoSQL to normalize the data and establish a relational database using PostgreSQL, ensuring data integrity and optimal ETL workflows.
- Conducted Exploratory Data Analysis (EDA) by querying data with SQLite, producing informative visualizations on business sector distributions and default rates using Seaborn, Plotly, and Matplotlib, enhancing data-driven insights.
- Implemented various machine learning models for classifying businesses' loan repayment likelihood, achieving a 93% accuracy rate using the Random Forest algorithm and optimizing feature selection with scikit-learn.

## **SKILLS AND CERTIFICATIONS**

- **Languages:** Python, SQL, R, MATLAB.
- **Software:** AWS, GCP, Langchain, TensorFlow, Pytorch, scikit-learn, Keras, Hugging Face Transformers, Tableau, Power BI, Excel, Google Data Studio, Excel
- **Frameworks:** XGBoost, LightGBM, Optuna, Pandas, Numpy, Dask, Plotly, SQL, Seaborn
- **Certifications:** Google Data Analytics Specialization, Data Science and Business Analytics, Deep Learning Specialization.

## **EDUCATION**

**University at Buffalo, The State University of New York**

*Master of Science, Majors: Data Science*

Relevant Coursework: Statistical Learning and Data Mining, Machine Learning, Deep Learning

**Expected Dec 2024**

Buffalo, NY

**Visvesvaraya Technological University**

*Bachelor of Engineering in Computer Science*

Relevant Coursework: Data Structures, Algorithms, Software Engineering, Database Management

**Aug 2016 – Aug 2020**

India