**ADITHI KALLEM**

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**EDUCATION:**

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| **Data Analytics Engineering**  George Mason University - Fairfax, VA | Master's | **GPA: 3.96 / 4** |
| **Computer Science Engineering (CSE)**  Sridevi Women's Engineering College - Hyderabad, India | Bachelor of Technology | **CGPA: 7.14 / 10** |

**TECHNICAL SKILLS:**

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| Programming Languages: | C, Python, Java. |
| Database: | MySQL, MongoDB. |
| Data Analysis Tools: | R Programming, Tableau, SAS, Jupyter Notebook, Anaconda. |
| Cloud & Machine Learning Technologies: | AWS Lambda, Amazon S3, AWS Kendra, Amazon Lex, Amazon Bedrock, Amazon OpenSearch, AWS Cognito, QnABot, RAG Systems, AWS Infrastructure Management, AWS Cost Optimization, AWS Solution Architecture, AWS Cloud Security, AWS Redshift, AWS Glue, AWS EMR, AWS SageMaker, Keras, TensorFlow, KNN, CNN, Logistic Regression, Linear Regression, Random Forest, SVM, Decision Tree, NumPy, Pandas, Matplotlib, Xgboost, Natural Language Processing (NLP), YOLOv5, LLaMA Model. |
| Web technology Tools: | HTML, CSS, Flask. |
| Microsoft office Suits: | Word, PowerPoint, Microsoft Excel (Pivot Tables, Linear Optimization, Queueing Simulation, Decision Tree). |

**EXPERIENCE:**

**Web Development Intern | Swecha 04 / 2019 to 01 / 2021**

* Contributed to promoting the Free Software Movement in Telangana and Andhra Pradesh through innovative web development solutions.
* Designed and developed a “Student Issue Management System” using HTML, CSS, JavaScript, and MongoDB to streamline student issue tracking and resolution.

**Programmer Analyst | Quality Assurance Engineer 05 / 2021 to 11 / 2022**

**Cognizant Technology Solutions**

* Improved system reliability by conducting comprehensive testing and defect management, enhancing the digital experience for Sally Beauty Holdings, and supporting the transition to a cloud-based order management system.
* Optimized order placement workflows by rigorously testing front-end and back-end processes, ensuring seamless integration and accurate end-to-end validation while contributing to the efficiency of cloud-based order management solutions.
* Enhanced system performance and user satisfaction by resolving critical issues using JIRA and minimizing post-launch bugs through rigorous pre-release testing, laying the foundation for scalable cloud-based operations.

**PROJECTS:**

1. **Generative AI RAG Chatbot for Mason Student Services Center | Capstone Project**

* Designed and developed a Generative AI Retrieval-Augmented Generation (RAG) chatbot for the Mason Student Services Center (MSSC) using AWS services such as Lex, Kendra, Bedrock, Lambda, and Cognito, ensuring seamless integration with MSSC systems.
* Leveraged Anthropic Claude LLM to enhance query resolution, achieving a 20% improvement in response times and 95% accuracy, supporting over 200,000 user interactions during a 6-month pilot program.
* Conducted extensive testing and refinement over a 15-week capstone project.

**Technology/Tools:** AWS (Lex, Kendra, Bedrock, Lambda, Cognito), Anthropic Claude LLM, Natural Language Processing (NLP), Knowledge Base Integration, Compliance

1. **SkinGPT: AI-Powered Diagnostic System for Skin Condition Analysis**

* Collaborated on the development of SkinGPT, an AI-powered diagnostic tool for skin condition analysis, as part of an NLP course at George Mason University.
* Integrated YOLOv5 for image classification and the LLaMA model for natural language processing, creating a user-friendly chatbot for delivering accurate health insights.
* Enhanced dermatological care by providing reliable second opinions for dermatologists and improving patient engagement, particularly in underserved communities.

**Technology/Tools:** Machine Learning, Natural Language Processing, YOLOv5, LLaMA Model, Telemedicine, Patient Engagement.

1. **Predictive Analytics for Healthcare and Financial Risk Mitigation**

* Conducted predictive analytics on heart failure and loan default datasets using R programming, achieving an 88.9% accuracy in healthcare survival prediction and a 0.9758 AUC in financial risk mitigation.
* Applied advanced machine learning algorithms, including logistic regression, random forest, decision trees, and K-Nearest Neighbors, to identify significant predictors and derive actionable insights.

**Technology/Tools:** R Programming, Logistic Regression, Random Forest, Decision Trees, K-Nearest Neighbors, Data Preprocessing and Visualization Libraries.