Sai Kusuma Keerthi Chelluri

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Education

George Mason University, MS in Software Engineering

Aug 2023 - May 2025

- GPA: 3.5/4.0
- **Coursework:** Component-based Software Development, Secure Software Design and Architecture, User Interface Design and Development, Software Testing

Gayatri Vidya Parishad College of Engineering for Women, Bachelor's in Computer Science

May 2018 - May 2022

- GPA: 8.3/10
- Coursework: Programming in JAVA, Python, C++, HTML, CSS, DSA, DBMS, OS, Robotic Process Automation

Experience

Associate Software Engineer, Data, DXC Technology, India

2023

- Contributed to ETL pipeline development for AI/ML solutions, transforming raw utility grid data into structured datasets for predictive maintenance models built for a European energy company.
- Implemented data validation and cleaning procedures using Python, ensuring high-quality inputs for machine learning algorithms analyzing network infrastructure.
- Collaborated with cross-functional teams to integrate data from multiple sources into a unified platform, supporting scalable computer vision model deployment for utility clients.
- Developed data transformation workflows that reduced processing time by 30% while maintaining data integrity across the analytics pipeline.

Skills

Programming Languages: Python, Java, C++, JavaScript, SQL, HTML, CSS

Machine Learning & AI: Machine Learning, Deep Learning, Scikit-Learn, TensorFlow, PyTorch, OpenCV, YOLOv5, CNNs, GANs, NLP, Transformers, BERT, Apache Spark, Databricks, AWS, Pandas, PySpark.

Software Development & Automation: Django, Flask, React.js, PostgreSQL, MySQL, MongoDB, REST API, OOP, Microservices, Git, Docker, Kubernetes, S3, EC2, Jenkins, CI/CD, UiPath, Robotic Process Automation (RPA), Pandas, NumPy, Software Testing, Problem solving, Linux Commands, Bash Scripting.

Publications

Air Canvas Using OpenCV and YOLOv5 Algorithm

June 2023

This paper focuses on the Air Canvas web application, its functinalities and algorithms using Python, OpenCV, YOLOv5, Click to open publication

Projects

Air Canvas Using YOLO Object Detection

• Developed an air canvas application using YOLOv5s and OpenCV for real-time hand tracking, gesture recognition, and virtual drawing with customizable brush features for seamless user interaction.

Restaurant Management System

• Built a full-stack web app using Django and PostgreSQL for user registration, table reservations, and management, with a user-friendly, responsive interface created using HTML and CSS.

Face Generation with GANs

• Implemented advanced training techniques, including transfer learning and fine-tuning, on a GAN for facial generation, reducing training time by 40% and improving image resolution.

Handwritten Digit Classifier Using PyTorch

• Developed a neural network in PyTorch for MNIST digit classification with a 96.81 percent accuracy, leveraging the Adam optimizer, CrossEntropyLoss, data augmentation, and GPU acceleration with CUDA.

Landmark Classification and Tagging for Social Media

• Implemented a CNN with transfer learning for landmark image classification, achieving 74 percent accuracy through advanced preprocessing, optimization strategies, and fine-tuning.

Text Translation and Sentiment Analysis Using Transformers

• Built a multi-lingual tool using MarianMT for translation and BERT-based models for sentiment analysis of French and Spanish movie reviews, synthesizing results in a comprehensive NLP-based framework.

Certifications

NVIDIA DLI Certificate - Rapid Application Development with Large Language Models (LLMs)	View Certificate
NVIDIA DLI Certificate - Getting Started with Deep Learning	View Certificate
NVIDIA DLI Certificate - Introduction to Transformer-Based NLP	View Certificate
Udacity - Deep Learning	View Certificate
Udacity - LLMOps: Building Real-World Applications with LLMs	View Certificate
Forage - Backend Engineering Virtual Experience Program	View Certificate
NPTEL - Computing using Python	View Certificate
NPTEL - Programming in Java	View Certificate
HiPath - Robotic Process Automation	View Certificate