

Shruthi Tamaraana

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Summary!

Tech- savvy BTech student with expertise in Python and machine learning, known for exceptional leadership and communication skills. Proficient in solving complex problems using innovative technology and delivering impactful solutions. Demonstrates strong leadership skills, fosters effective collaboration, and excels in fast-paced and dynamic environments

Education

Aditya College of Engineering and Technology, BTech in CSE-AIML Sept 2022 – May 2026

- CGPA: 8.38
- **Coursework:** Data Structures and Algorithms, Object Oriented Programming Using Java, Python, Introduction to Artificial Intelligence and Machine Learning, Machine Learning, Deep Learning, Database Management Systems, Probability and Statistics.

Experience

Machine Learning Intern, APSSDC and IBM SkillsBuild May 2024 – June 2024

- Completed a 6-week internship focused on Artificial Intelligence and Machine Learning .
- Gained practical experience in applying AI and ML algorithms to real-world problems, with a specific emphasis on NLP tasks.
- Worked together with peers and industry experts to improve technical AI and ML skills.
- Used Natural Language Processing (NLP) techniques to extract insights from textual data, leveraging machine learning models for accurate sentiment classification.

Python Programming Intern, InternPe Aug 2024 – Sept 2024

- Successfully completed a one-month internship focused on Python Programming.
- Worked on real-world projects, applying problem-solving skills and programming expertise.
- Developed efficient and optimized Python scripts to automate tasks.
- Gained hands-on experience with data structures, algorithms, and object-oriented programming.
- Explored OpenCV and data analysis techniques for practical applications. Improved debugging skills by resolving errors and optimizing code performance.
- Worked collaboratively in a team environment, enhancing communication and teamwork skills. Demonstrated professionalism, dedication, and a Hands-on approach during the internship.

Projects

AI-Powered Browser Assistant [github/Ai-powered-browser-agent](https://github.com/shruthitamaraana/Ai-powered-browser-agent)

- Developed an AI-powered browser interaction tool with a user-friendly Gradio WebUI to enhance website accessibility for AI agents.
- Implemented expanded LLM support, integrating models like Google, OpenAI, Anthropic, and DeepSeek with plans for future expansion.
- Designed a custom browser support feature, allowing users to operate with their own browsers without requiring re-login or authentication hurdles.
- Integrated high-definition screen recording capabilities for better monitoring and analysis.
- Enabled persistent browser sessions, maintaining session history and AI interaction states for an uninterrupted workflow.

- Tools and Technologies used: Python, Gradio, Selenium, OpenAI API, and Web Automation Frameworks to power AI-driven browser interactions.

Sentiment Analysis

github/sentiment Analysis

- Improved a machine learning-based sentiment analysis model to classify text reviews as positive or negative.
- Implemented Natural Language Processing (NLP) techniques such as tokenization, stop-word removal, stemming, and lemmatization for text preprocessing.
- Deployed a Naïve Bayes classifier with TF-IDF vectorization for sentiment prediction, achieving 85 percent accuracy in classifying customer reviews, and reduced model training time by 20 minutes.
- Evaluated model performance using accuracy, precision, recall, and F1-score to fine-tune predictions .
- Tools and Technologies used : Python, Scikit-learn, NLTK, Jupyter Notebook, IBM SkillsBuild

Hand-written-digit-recognition

github/hand-written-digit-recognition

- Developed a CNN-based hand written digit recognition model using the MNIST dataset, achieving 98 percentage accuracy.
- Built an interactive web app that allows users to upload or draw digits for real-time prediction.
- The model was deployed in Streamlit Cloud, ensuring easy access and seamless performance.
- Used Python, TensorFlow/Keras, NumPy, and OpenCV for model training and image pre-processing.

Achievements

Top 10 Finalist, Startup Mahakumbh 2025 – Second Chance (AI-powered Organ Matching System)

Recognized among the top 10 startups from 500+ entries for innovation in healthcare using AI and blockchain. Led the end-to-end research and development of the core idea, including AI-driven organ matching and blockchain integration.

Solely responsible for pitching the startup to the jury during the online evaluation round.

Technologies

Languages: Python, C, Java, HTML, CSS, JavaScript

Technologies: Machine Learning, Web Development

Certifications

- Complete Machine Learning and Data Science with Python- Udemy, June 2024
- Data Analysis using python- APSSDC, March 2024
- Internship in Artificial Intelligence and Machine Learning– APSSDC and Edunet Foundation (IBM SkillsBuild), June 2024.
- Introduction to Machine Learning– NPTEL, Jul-Sep 2024
- Generative AI for Beginners- Simplilearn(SkillUp), March 2025