Ajay Dyavathi

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EDUCATION

New York Institute of Technology — New York, USA
Masters in Data Science (MSDS) — Jan 2022 - Dec 2023
- Cumulative GPA: 3.94/4.
- Relevant Coursework: Machine Learning, Statistics, Big Data Analytics, Deep Learning, Databases.
- Publication: Optimizing Semantic Segmentation in Urban Landscapes through Deep Learning. *waiting for approval.*

Jawaharlal Nehru Technological University — Telangana, India
Bachelor of Technology in Electronics and Communication Engineering — Aug 2016 - Sep 2020
- Relevant Coursework: Programming (C, Java), Database Management Systems, MATLAB.
- Conducted a 3-day workshop and taught Arduino and Programming to almost 100 undergraduate students.
- Built an 8-bit computer on breadboards to understand the significance and logic of different modules.
- Built a 4 wheeled robot using Raspberry Pi with mobile and web navigation, facial recognition, and voice recognition.

PROFESSIONAL EXPERIENCE

Avaamo.ai — Jan 2021 - Dec 2021
Conversational AI Engineer
- Innovated AI chat-bots, leveraging Data Analytics and Machine Learning for enhanced user interaction and satisfaction.
- Worked closely with teams across development, deployment, and monitoring to refine the chat agent lifecycle.
- Improved website navigation efficiency and customer engagement by 30%, leading to better user experiences.
- Deployed and managed over 10 chat agents in production, with continuous monitoring and optimization.
- Revolutionized chat-bot communication by leveraging real-time analytics, significantly enhancing the adaptability and precision of user interactions.

Avaamo.ai — Mar 2020 - Jan 2021
Conversational AI Intern
- Engineered 3+ AI chat agents using Natural Language Processing to streamline website navigation and service inquiries.
- Led the introduction of AI-driven customer support, significantly improving the provision of real-time assistance.
- Reduced user query response time from 3 seconds to 2 seconds through chat agent optimization.
- Leveraged expertise in AI, Natural Language Processing, and system optimization to enhance digital customer interactions.

SKILLS

Languages: Python, R, SQL *(Data Analysis)*; C, C++, Java, Swift, HTML, PHP, Java Script *(Software Development)*.
Machine Learning: NumPy, Pandas, Scikit-Learn, PyTorch, TensorFlow, Keras.
Statistics: Statistical Analysis, Time-series Analysis, ANOVA, Hypothesis Testing, Bootstrapping.
Data Visualization: Matplotlib, Seaborn, Plotly, Bokeh, Dash *(Python)*, GGplot *(R)*, Tableau, Power BI.
Techniques: EDA, Machine Learning, Neural Networks, Deep Learning, NLP, Computer Vision, Transformers, Generative AI.
Big Data and Others: Hadoop, Spark (PySpark), Microsoft Azure, AWS, AI, MySQL, MongoDB, SQLite**,** Docker, Git.
Soft skills: Collaboration, Communication, Problem Solving, Leadership, Team Management, Stakeholder Management.

PROJECTS

- **Urban Street Scene Understanding**: Employed PyTorch for UNet and SegNet models on the Cityscapes data set, achieving 90% accuracy in semantic segmentation. Highlighted deep learning and DCNN expertise in urban scene analysis.

- **BBC News Articles Clustering:** Leveraged K-means and advanced NLP for clustering 2225 BBC News articles, applied PCA for dimensionality reduction and LDA for topic naming, and visualized interactive results with t-SNE and Plotly.

- **Lung X-ray Segmentation:** Developed a U-Net transformer for lung segmentation in X-ray images, applying advanced processing methods to enhance quality and achieving an 82% IoU score, demonstrating proficiency in image segmentation.

- **CIFAR-10 Image Classification:** Engineered a DCNN with Residual and Inception blocks for CIFAR-10, reaching 90% accuracy. Optimized with callbacks, and learning rate schedulers, and integrated into a Telegram bot.

- **ML-based Diagnosis Website:** Designed a Django-based medical diagnosis web platform, integrating traditional ML models using scikit-learn and SQLite database for data handling, deployed on AWS EC2 for enhanced scalability and reliability.

- **Cow Teat Mastitis Classification:** Built a custom ResNet model using PyTorch for cow teat mastitis classification, categorizing severity into 4 levels. Implemented pseudo-labeling for data augmentation, achieving 85% accuracy.

ACHIEVEMENTS

- Earned IBM Data Science Professional Certificate covering data analysis, machine learning, and Python in 6 months.