

# 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.

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## 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 to scale.
- 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.

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## 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:** Data Extraction, Wrangling, Data Pipelines, Data Mining, Analysis, Feature Extraction, Supervised Learning.

**Deep Learning:** MLP, Computer Vision, DCNNs, RNNs, NLP, Transformers, GANs, Generative AI.

**Big Data and Others:** Hadoop, Spark (PySpark), Microsoft Azure, AWS, GCP, AI, MySQL, MongoDB, SQLite, Docker, Git.

**Soft skills:** Collaboration, Communication, Problem Solving, Leadership, Team Management, Stakeholder Management.

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## 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 cloud for enhanced scalability and reliability.

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## ACHIEVEMENTS

- Earned [IBM Data Science Professional Certificate](#) covering data analysis, machine learning, and Python in 6 months.