

DURGA NARASIAH NAIDU KILARU

Target Role: Machine Learning Engineer Intern – Genies

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Professional Summary

Data Science graduate student with hands-on experience in Machine Learning, Computer Vision, and AI-powered applications. Currently developing avatar-focused projects including face segmentation and VR-based data visualization, with expertise in Python, TensorFlow, and deep learning. Passionate about applying AI to creative industries and digital identity technology, eager to contribute to Genies' innovative 3D avatar platform and immersive experiences.

Education

University of Massachusetts, Dartmouth

Dartmouth, MA

Master of Science in Data Science

Jan 2024 – Dec 2025 (Expected)

- Relevant Coursework: Machine Learning, Artificial Intelligence, Data Visualization, Deep Learning, Computer Vision
- Focus Areas: Neural Networks, Feature Engineering, Statistical Analysis

Velagapudi Ramakrishna Siddhartha Engineering College

India

Bachelor of Technology in Civil Engineering

Graduated: May 2023

- Relevant Coursework: Statistics, Programming Fundamentals, Mathematical Modeling, Data Structures

Technical Projects

AI Avatar Face Segmentation Pipeline

Jan 2024 – Present

- Developing U-Net based deep learning model for precise face segmentation on CelebA dataset (200K+ images)
- Implementing custom data preprocessing pipeline using OpenCV and targeting 89% IoU on validation set
- Creating annotation workflow using labelme for ground truth generation and model evaluation
- Tech Stack: PyTorch, OpenCV, NumPy, Matplotlib

ImmersiVR: Virtual Reality Data Visualization & AI-Generated Models

2023 – 2024

- Developed interactive VR-based data visualization platform for immersive analytics and AI-generated person models
- Integrated D3.js, Unity, and Machine Learning algorithms to create dynamic 3D data representations
- Built AI-generated deceased person models demonstrating expertise in generative AI and 3D modeling
- Tech Stack: Unity, D3.js, TensorFlow, C#, JavaScript

AI-Powered Voice-Based Restaurant Order Management System

2023

- Developed voice-enabled AI chatbot handling customer orders via phone using NLP and speech recognition
- Integrated Twilio API for call handling and Google Speech API for voice-to-text conversion (95% accuracy)
- Implemented backend database management system organizing orders for kitchen workflow optimization
- Tech Stack: Python, Twilio API, Google Speech API, NLP, Text-to-Speech APIs

AI Job Market Interactive Visualization

2023

- Designed interactive data visualization showcasing distribution of AI-related jobs across industries
- Analyzed 10K+ job postings to identify key skills and regional hiring trends using statistical analysis
- Created dynamic web-based dashboard with filtering and drill-down capabilities
- Tech Stack: Node.js, HTML, JavaScript, D3.js, Visual Studio

Multi-Model Performance Analysis on Fashion-MNIST

Feb 2024 – Present

- Benchmarked Logistic Regression, CNN, and ResNet architectures targeting 92% accuracy with ResNet
- Analyzed model performance trade-offs including inference time and memory usage optimization
- Visualized results using confusion matrices and learning curves to identify overfitting patterns
- Tech Stack: TensorFlow, scikit-learn, Pandas, Seaborn

Technical Skills

Programming Languages: Python (Pandas, NumPy, Scikit-learn, TensorFlow), SQL, R, JavaScript, C#

Machine Learning: Regression, Classification, Clustering, Neural Networks, Feature Engineering, A/B Testing

Computer Vision & AI: OpenCV, PyTorch, TensorFlow, NLP, Speech Recognition, Generative AI

Data Visualization: Matplotlib, Seaborn, D3.js, Power BI, Tableau

Big Data & Cloud: AWS (S3, EC2, Lambda), Google Cloud, Azure, Hadoop, Spark

Development Tools: Git, Docker, Linux, Unity, API Integration, Jupyter Notebook

Specialized: VR Development, Voice AI, 3D Modeling, Statistical Analysis, Time Series Analysis

Certifications

Machine Learning Specialization – Coursera	Completed
AI for Everyone – Coursera	Completed
Python Data Structures – Coursera	Completed
Programming for Everybody – Coursera	Completed

Interests & Vision

- Technical Interests:** 3D Avatar Technology, Virtual Reality, Generative AI, Voice AI, Digital Identity
- Industry Focus:** Entertainment Technology, Gaming, Creative AI Applications, Immersive Experiences
- Personal:** VR Development, Interactive Media, AI-Powered Creative Tools