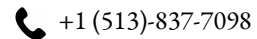


# Jeshmitha Gunuganti



## Education

**Master of Science, Computer Science - Data Science**, - University of Cincinnati, USA Aug. 2021 – Present

Courses: Intelligent Data Analysis, Big Data Analytics, Advanced Algorithms, Machine Learning, Information Retrieval CGPA: 3.8/4.0

**B.Tech, Computer Science - VNR VJIEIT, India** CGPA: 4.0/4.0 Aug 2017 - July 2021

Secured **2nd Prize at V-IGNITE Nationwide Hackathon** for an ML project - “**Engine Failure Prediction.**”

- An end-to-end system that predicts any machine malfunction weeks by tracking live data from sensors and automatically turns off the machine without any human intervention while sending notifications to the owner.

## Technical Skills

<b>Languages:</b>	Python, Java, C/C++, Data Structures, SQL, MongoDB, Flask, HTML, CSS.
<b>Tools:</b>	20+ AWS services, Terraform, Git, Linux, Docker, Jupyter Notebook, VS Code, PyCharm.
<b>Packages:</b>	PyTorch, NumPy, Pandas, Scikit-Learn.
<b>Data Science:</b>	Statistics, ETL, Feature engineering, Data visualization[PowerBI, Tableau], A/B testing.
<b>Machine Learning:</b>	Supervised & Unsupervised Learning, Recommender systems.
<b>NLP:</b>	NLP pipeline, Text-preprocessing, Word embeddings - Word2Vec, GloVe, BERT, GPT.
<b>Deep Learning:</b>	Sequence models(RNN, LSTM, GRU, Transformer), GAN, Hyperparameter Tuning.
<b>Certifications :</b>	<ul style="list-style-type: none"><li>• Data Science For Engineers - IIT Madras</li><li>• Applied Machine Learning In Python - University Of Michigan.</li></ul>

## Work Experience

**Machine Learning Engineer - Research Assistant, University of Cincinnati [Video Processing Lab]** Oct.2021–Present  
*Unsupervised Video Summarization with Adversarial Graph-based Attention Network*

- Developed an automatic video summarization model by combining attention mechanism with graph modeling techniques and using VAE-GAN(Variational Autoencoder - Generative Adversarial Network) architecture with transformer encoder.
- Achieved state-of-the-art results compared to the existing unsupervised methods.

**Teaching Assistant, University of Cincinnati** Jan. 2022 – Dec. 2022

- “Intro to Applied Artificial Intelligence & Machine Learning Tools”: Jan 2022 - Aug 2022
- “Data Structures” & “Cloud Computing”: Aug 2022 - Dec 2022
- Graded student projects & assignments and hosted weekly office hours and lab sessions to solve student queries in machine learning and programming concepts.

**System Development Engineer Intern, Amazon.com, Inc.** Jan. 2021 – July. 2021  
*AWS | Python | Java | AWS CDK | Front-end web development* India

- **SPT Analysis Automation:** Developed an automation tool using AWS services that gives insights from metrics during Service Performance Testing, which reduced the analysis time significantly from 30 mins, when manually done, to 1 min.
- **IRS Enhancement:** Enhanced the Incident Resolver Automation tool to solve the tickets issued from MonitorPortal

**Machine Learning Engineer [Innovation Team], Qvantel Software Solutions** Jan. 2020 – Jan. 2021  
*AWS | Machine Learning | Python | Terraform | Data Visualization* India

- **Trending Analysis of Social Media:** Performed social media analysis using AWS and visualized the data using QuickSight.
- **AI Chatbot:** Built a Chatbot and integrated analytics tools to get deep insights into the customer experience.
- **AI-powered Call Center:** Established a virtual call center and performed sentiment analysis on caller interaction.

**Machine Learning Intern, International Institute of Information Technology** Oct. 2019 – Dec. 2019  
*Machine Learning | Android App Development | Flask | Python* India

- Developed an end-to-end system for “Prognostic System Health Management” by building an android application to monitor and predict the machine’s health condition that could help the industry environment by providing advanced alerts.
- Analyzed the performance of various algorithms - Decision Tree, XGBoost, SVM, and KNN.

## Projects & Research Experience - Publications

**Speech Emotion Recognition - Deep Learning, Python**

“Capsule Network based Speech Emotion Recognition for efficient capturing of spatial features”, ICAICR 2021. [\[Paper\]](#)

- Extracted MFCC features from audio recordings and trained the CapsuleNet & CNN-LSTM deep learning models.
- Achieved state-of-the-art 94.01% performance accuracy with the CapsuleNet model, which outperformed traditional models.

**Flight Delay Prediction - Machine Learning, Python**

“Machine Learning Model-based Prediction of Flight Delay.”, IEEE - 4th International Conference on ISMAC. [\[Paper\]](#)

- Developed a model to predict the arrival delay of flights at airports using ML algorithms - XGBoost and Regression models.