## Krishna Anvith Vattikuti

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### **EDUCATION**

New Jersey Institute of Technology

Newark, NJ

Master of Science

Expected May 2026

Major in Data Science Cumulative GPA: 3.33/4.0

Relevant Coursework: Data Analysis, Software Engineering; Operating Systems; Algorithms; Artificial Intelligence

Lovely Professional University

Punjab, India

Bachelor's of Technology

July 2020 - July 2024

Major in Computer Science and Engineering

Minor in Data Science (AI and ML)

GPA: 7.2/10

#### TECHNICAL EXPERIENCE

UpGrad Punjab, India

Data Science Intern

January 2024 – May 2024

- Led a 3-member team to architect ML pipelines utilising Scikit-learn and TensorFlow on real-world datasets, which decreased data preprocessing time by 30% and accelerated the model training lifecycle.
- Integrated a HAR system achieving 97.53% accuracy, reducing false positives by 10% by identifying and fixing the main causes of mis-classification, ultimately improving fall detection systems.
- Streamlined feature engineering processes within the machine learning pipeline, culminating in a 20% reduction in model-training time and a 30% improvement in data processing efficiency.

TekWissen Software Visakhapatnam, India

Computer Vision & IoT Summer Intern

May 2023 - August 2023

- Engineered a real-time plant disease evaluation pipeline using TensorFlow and OpenCV, achieving 92% accuracy in identifying common diseases, and enabling a 2x faster response.
- Created automated scripts for plant disease image augmentation pipeline, generating 5,000+ synthetic images weekly to
  enhance dataset diversity, improving model accuracy by 15% and saving 10 hours weekly.
- Rearchitected key components of TensorFlow Lite, delivering a verified 2x acceleration in inference speed and enabling real-time plant disease evaluations; Mentored and trained 2 interns while documenting processes.

## PROFESSIONAL PROJECTS

# Incremental Structure-from-Motion & Multi-View Stereo Pipeline (Ongoing)

August 2025

- Developed browser-based SfM pipeline using OpenCV.js and WebGPU for 3D reconstruction from unordered photographic datasets.
- Implemented ORB/SIFT feature detection, descriptor matching, and Essential matrix estimation via RANSAC to recover relative camera poses.
- Planned dense multi-view stereo with pixelwise view selection, PatchMatch stereo, and bundle adjustment for improved 3D reconstruction accuracy.

Explain The Model May 2025

- Automated the generation of SHAP summary plots and waterfall visualizations for a machine learning model, enabling the identification of 5 previously undetected data quality issues within the first month.
- Diagnosed and remediated eight data quality anomalies utilizing SHAP-based visual diagnostics within one month, contributing to more robust model performance and generating findings to fix the three biggest causes of crashes.
- Delivered a reusable dashboard module for plug-and-play SHAP support across classification models, visualized 1000+ feature importances weekly, contributing to faster model iterations and enhanced decision-making.

### UrbanSound8K: Environmental Sound Classification

May 2025

- Standardized audio feature extraction by converting 8,732 audio clips into Mel-spectrograms and MFCCs, improving
  consistency across datasets and reducing data preparation time by 20%.
- Developed CNN and DNN models achieving up to 76% accuracy on 10 urban sound categories.
- Reduced overfitting in image classification models by implementing data augmentation strategies, including random rotations and flips, demonstrably improving the F1 score by 12% on unseen data.

### **AWARDS & RECOGNITIONS**

National Service Scheme, LPU

Punjab, India

Head of Division

March 2022 - May 2024

- Received official recognition from the Ministry of Youth Affairs and Sports, Government of India, for outstanding contributions to social service initiatives.
- Dedicated 470+ hours to diverse community service projects, increasing awareness of critical social issues, such as public sanitation, and promoting preventative healthcare at the grassroots level.
- Spearheaded a series of four educational workshops focused on environmental sustainability, empowering 100+ community members with practical skills and knowledge to implement eco-friendly practices at home.

### **ADDITIONAL**

**Technical Skills**: Python, SQL, HTML, CSS, PyTorch, Scikit-learn, Power BI, Tableau, Mysql, NLP, Deep Learning, TensorFlow, Apache Spark

Languages: Fluent in English

Certifications & Training: Neural Networks and Deep Learning, Google Data Analytics, Advanced SQL for Data Scientists

Awards: Got recognised by Indian Government for 500+ hours of National Service