

# Jithendra Puppala

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## Education

New York University  
M.S. Computer Science

New York, NY  
May 2027

National Institute of Technology Karnataka (NITK Surathkal)  
B.Tech. Computer Science and Engineering

Surathkal, Mangaluru, India  
May 2023

## Skills

- **Programming & Data Processing:** Python, SQL, C, Pandas, NumPy, Data Preprocessing, Feature Engineering
- **Machine Learning & AI:** Machine Learning, Deep Learning, Computer Vision, Large Language Models (LLM) Fine-Tuning, Semi-Supervised Learning, ARIMA, XGBoost, Random Forest, Time-series Modeling
- **Frameworks & Libraries:** TensorFlow, PyTorch, Scikit-learn, HuggingFace Transformers, OpenCV
- **Development & Deployment:** REST API Development, Django, Docker, Amazon Web Services (AWS, S3, EC2), Google Cloud Platform (GCP), MLOps, Flask
- **Data Analytics & Visualization:** Jupyter Notebook, Tableau, Matplotlib, Seaborn
- **Collaboration & Tools:** Git, GitHub, Linux, VIM, Anaconda, Google Workspace, Notion, Trello

## Experience

Jio Platforms Limited  
Data Scientist

Bengaluru, Karnataka, India  
June 2023 – July 2025

- Improved **precision by 11%** and **recall by 14%** by building and deploying machine learning models for cattle heat detection using **time-series analysis** and **ensemble methods**.
- Integrated cattle heat detection models into production systems for IoT-based JioGauSamriddhi cattle monitoring devices, **contributing to 4x YoY revenue growth**.
- Developed and deployed **Flask-based REST APIs** for real-time inference in AWS cloud environments, serving ML predictions on live production servers.
- Engineered **ARIMA residual-based time-series** features to enhance model accuracy and interpretability.
- Optimized cattle activity detection pipeline, achieving **20x** faster execution and improved accuracy from **89%** to **93%** using **Butterworth filters**.
- Designed and deployed Streamlit operational dashboards integrated with analytics outputs, enabling **10x faster decision-making** for **200+** field agents.
- Collaborated with cross-functional analytics and frontend teams to ensure seamless integration of ML outputs into **production workflows**.

Accenture

Bengaluru, Karnataka, India

Advanced App Engineering Analyst - Intern

June 2022 – July 2022

- Conducted a comprehensive **observability** study to improve system monitoring, performance, and reliability across enterprise applications.
- Evaluated monitoring and logging tools by comparing their effectiveness for incident detection and root cause analysis.
- Presented findings and best practices to **25+** engineers, influencing the adoption of improved monitoring strategies.

## Projects

MixMatch on Custom Dataset

Mar 2022 – April 2022

- Implemented **semi-supervised learning** using the MixMatch algorithm on a custom dataset to improve classification performance with limited labeled data.
- Achieved a **12%** better accuracy over baseline models by applying data augmentation and consistency regularization.

Generic Library Management System (Django)

Aug 2021 – Dec 2021

- Built a web-based library management system using Django, featuring book search, issue tracking, user authentication, and admin dashboard controls. Deployed locally using **SQLite**, **Bootstrap for UI**, and **Git** for version control.

## Leadership & Achievements

- Finalist-Harvard Crossroads Emerging Leaders Program (CELP) - 2021  
Selected among top **114** of **10,000+** global applicants for a leadership program organized by Harvard University.
- JEE Mains Rank: **2683** | JEE Advanced Rank: **6111** | All India ranks among **1,150,000** participants.
- Campus Director – Millennium Fellowship (UNAI & MCN) for NIT Karnataka.  
Led SDG-aligned civic projects; mentored 15+ fellows; coordinated workshops and campus-wide engagement.
- Webinar Host – Competitiveness Mindset Institute Designed and facilitated student leadership webinar for **3** NIT campuses (NIT Karnataka, NIT Surat, NIT Rourkela) with **over 300 participants**; coordinated content and outreach.