

# SUBHADEEP JANA

(812) 916 3613 | Bloomington, IN | [jsubhadeep1999@gmail.com](mailto:jsubhadeep1999@gmail.com) | [LinkedIn](#) | [Website](#)

## EDUCATION

### Master of Science (M.S.) in Computer Science

Indiana University Bloomington

Aug 2022 - May 2024

GPA: 3.87/4.0

- Coursework: Software Engineering, Applied Algorithms, Applied Machine Learning, Time Series Analysis

### Bachelor of Technology (B.Tech.) in Computer Science

Government College of Engineering and Ceramic Technology

Aug 2017 - Jul 2021

CGPA: 9.07/10.0

- Coursework: Data Structures, Software Development, Artificial Intelligence, Database Management Systems

## WORK EXPERIENCE

### Radiance Technologies

Software Development Engineer

Jul 2025 - Present

Remote

- Developed a data visualization system for financial KPIs and P&L tracking, improving operational efficiency by 30%. Built an ETL pipeline for ingesting data from AWS S3 buckets, preprocessing, and feature engineering using Pandas and LangChain.
- Collaborated with a cross-functional team to gather and structure financial data for business analytics dashboards. Implemented data integrity checks and automated validation scripts to monitor data quality and information consistency.

### Luddy School of Informatics, Computing, and Engineering

Research Assistant

Jan 2024 - Jul 2025

Bloomington

- Architected a cognitive experiment using JavaScript and jsPsych to study *imminence* and *recency* perception in humans, analyzing 1000+ participant data collected over Amazon MTurk. Visualized trends on PowerBI and DAX powered dashboards.
- Utilized psiTurk, PHP, and jQuery to deploy experiment and store results on a Linux server. Applied Python and MATLAB for exploratory data analysis and visualization to study behaviour exhibited by participants.
- Improved accuracies by 35% by integrating a balanced probe distribution in the experiment, modifying key timeline parameters like inter-probe duration, and generating real-time accuracy feedbacks at regular intervals.

### Ixxo Lambda Vision

Data Analyst

Jan 2021 - Feb 2022

Remote

- Developed a Flask-based dashboard to detect key physical features of a car through *computer vision* and *image processing*. Collaborated in a cross-functional Agile team of 5 for feature integrations, data collection, and resource documentation.
- Trained a YOLOv3 *object detection* model on TensorFlow and annotated 10,000+ images using Visual Object Tagging Tool (VoTT) to enhance detection. Utilized TensorBoard to monitor model training progress.
- Enhanced color detection accuracy to 85% leveraging histogram equalization, color mapping techniques from OpenCV, scikit-image and Pillow. Built visualizations on HSV clustering and dominant color frequency across image batches in PowerBI.

## SKILLS

**Languages** Python, C++, JavaScript, HTML, CSS, SQL, Bash

**Databases** MySQL, PostgreSQL, MongoDB, Pinecone

**Frameworks** Flask, React, OpenCV, Keras, TensorFlow, Scikit-learn, Pytest, jsPsych, psiTurk, LangChain

**Tools** Git, Jira, VS Code, Jupyter Notebook, Postman, PowerBI, Tableau, Docker, Adobe Creative Cloud

## PROJECTS

### Audio Genre Classification using Machine Learning

[Paper](#)

- Evaluated 10+ machine learning models for audio genre classification, including probabilistic models in scikit-learn and neural network models in TensorFlow. Led a team of 4 to optimize model performance and reduce training times by 23%.
- Engineered *series* and *parallel* hybrid CNN-RNN models using LSTM for improved classification, achieving 90% test accuracy for multi-class *FMA-Small* dataset on 48 input spectral features and audio mel-spectrograms.

### World Bank Economic Data Analysis

[GitHub](#)

- Constructed an interactive PowerBI dashboard to analyze the World Development Indicators and economic growth factors, leveraging key metrics like GDP per capita and income trends over decades for 200+ countries.
- Implemented a star schema database design for optimized data modeling and query performance, DAX measures, and dynamic visualizations to analyze time series data from the past 50 years.

### Comparative Study of OpenCV Inpainting Algorithms

[Paper](#)

- Analyzed *Navier-Stokes*, *Frequency Selective Reconstruction*, and *Telea* inpainting algorithms in OpenCV library on the basis of Peak Signal to Noise Ratio (PSNR), Structural Similarity Index (SSIM) and runtime metrics.
- Processed the *Kodak* image dataset and utilized custom error masks for a data-driven analysis, evaluating the algorithms over edge, pattern, and text inpainting. Results published in GJCST: Interdisciplinary, Volume 21, Issue 2.

## CERTIFICATIONS

- AWS Solution Architect Associate (SAA-C03) — [Badge](#)