# POORNIMA RANA

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Gurugram, Haryana, India

### **EDUCATION**

# **Dronacharya College of Engineering**

May 2026

Bachelor of Technology in Computer Science Engineering, CGPA: 7.82

Guruqram, Haryana

 Relevant Coursework: Machine Learning, Deep Learning, Data Structures, Database Management Systems, Statistical Analysis

## **EXPERIENCE**

## **Austere Systems Private Limited**

June 2024 - July 2024

Machine Learning Intern

Gurugram, Haryana

- Architected real-time facial recognition system using YOLOv3 algorithm, achieving 92% accuracy across 5,000+ test images
- Engineered object detection pipeline processing 10,000+ images daily with 50ms inference time per image
- Streamlined data preprocessing workflows using NumPy and Pandas, reducing training time by 35% for large datasets
- Evaluated model performance metrics and identified cost optimization opportunities worth \$15,000 annually
- Collaborated with cross-functional teams to integrate ML models into production environment

Deloitte March 2025

Data Analyst Virtual Job Simulation

Remote

- Executed comprehensive data analysis project involving forensic technology and business intelligence for 2 client cases
- Constructed interactive Tableau dashboard displaying 15+ KPIs and business metrics for executive stakeholders
- Processed and analyzed 50,000+ records using Excel advanced functions, generating insights that influenced strategic decisions
- Enhanced stakeholder data comprehension by 40% through interactive visualizations and statistical summaries
- Applied forensic analysis techniques to detect anomalies in financial datasets worth \$2M+

Walmart USA April 2025

Software Development Engineer Virtual Job Simulation

Remote

- Resolved complex technical challenges across 5 engineering teams, demonstrating versatility in software architecture
- Designed optimized heap data structure in Java, improving package sorting efficiency by 25% for logistics operations
- Crafted comprehensive UML diagrams for data processing systems handling 100,000+ daily transactions
- Managed version control using Git and Subversion for 10+ collaborative projects with distributed teams
- Implemented software engineering best practices including automated testing and code review processes

### **TECHNICAL SKILLS**

Programming Languages: Python, R, SQL, Java, JavaScript

Machine Learning Frameworks: Scikit-Learn, TensorFlow, PyTorch, Keras, XGBoost Data Analysis Tools: Pandas, NumPy, Matplotlib, Seaborn, SciPy, Statsmodels Visualization Platforms: Tableau, Power BI, Plotly, D3.js, Excel Advanced Analytics

**Database Systems**: MySQL, PostgreSQL, MongoDB, SQLite, Apache Spark **Cloud Technologies**: AWS, Google Cloud Platform, Microsoft Azure, Docker **Development Tools**: Git, GitHub, Jupyter Notebooks, PyCharm, RStudio

Statistical Methods: Hypothesis Testing, Regression Analysis, Time Series Forecasting, A/B Testing

## **PROJECTS**

### Advanced Facial Recognition System | Python, OpenCV, TensorFlow, CNN

2024

- Developed end-to-end facial recognition pipeline using convolutional neural networks, achieving 94% accuracy on 10,000+ images
- Integrated real-time video processing capabilities with OpenCV for live detection at 30 FPS
- Optimized computational requirements by 30% through model quantization and edge device configuration

- Constructed deep learning model for automated pneumonia and COVID-19 detection from 15,000+ chest X-ray images
- · Achieved 91% classification accuracy using transfer learning and data augmentation on medical datasets
- Incorporated explainable AI features using LIME for clinical decision support and model interpretability

## Multi-Class Object Detection Pipeline | Python, YOLO, OpenCV, Deep Learning

2024

- Deployed multi-class object detection system identifying 80+ categories with 89% mAP score
- Accelerated inference pipeline achieving 45 FPS processing speed on standard hardware configurations
- Trained custom model on 25,000+ annotated images using advanced data augmentation techniques

## **Retail Sales Forecasting Engine** | R, Time Series Analysis, Statistical Modeling

2024

- Formulated comprehensive sales forecasting model using ARIMA and exponential smoothing on 2+ years of Walmart data
- Attained 87% forecasting accuracy across 50+ product categories using seasonal decomposition methods
- Generated automated reports and interactive dashboards saving 20+ hours weekly for business analysts

## **CERTIFICATIONS**

Google Project Management Professional Certificate
Data Analysis with R Programming - Johns Hopkins University
Python for Everybody Specialization - University of Michigan
Convolutional Neural Networks - DeepLearning.AI

#### **ACHIEVEMENTS**

Delivered 4+ machine learning models in production with 90%+ accuracy rates

Analyzed 100,000+ records across multiple data analysis projects

Reduced model training time by 35% through advanced preprocessing optimization techniques

Generated cost savings of \$15,000+ annually through performance analysis and optimization