ARYAN BANSAL

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EDUCATION

University of California San Diego Jun 2026 Master of Science in Data Science CGPA: 4.0 **Vellore Institute of Technology** May 2022 Bachelor of Technology in Electronics and Communication Engineering CGPA: 3.84

Work Experience

Data Scientist II Jul 2023 – Aug 2024

Lentra AI

Bangalore, India

- Developed and deployed a **text-to-SQL AI agent** for customer analytics, boosting loan disbursements by 7%.
- Built **RAG** chatbots using OpenAI's GPT-3, saving 40+ hours weekly on client support, sales, and onboarding.
- Integrated chatbots with Slack and an Azure-based UI, enabling real-time updates to the knowledge base.
- Engineered an AWS-based face recognition system for fraud detection, processing 43M images in 17 days.
- Designed a face recognition system 30% faster than AWS Rekognition and 95% faster than Azure Face API.

Data Scientist I Jul 2022 - Jun 2023

Lentra AI

- Bangalore, India • Refactored Lentra's MLOps codebase to industry standards, improving readability by 77% and reusability by 85%.
- Built a greedy programming-based data labeling pipeline, reducing manual data labeling time by 95%.
- Developed an MLOps platform on Azure, enabling model deployments to cloud API endpoints in 120 seconds.
- Created a recommendation system with a precision@5 of 83%, optimizing product suggestions.

Data Science Intern Jan 2022 – Jun 2022

Lentra AI

Bangalore, India

- Overhauled a fuzzy logic-based Risk Analysis System, increasing the production accuracy from 38% to 92%.
- Built an ML pipeline with Feast, improving feature management, and reducing overall model training time.

PUBLICATIONS

Vehicle Number Plate Recognition Using OCR (DOI: 10.1109/I-PACT58649.2023.10434895)

Dec 2023

- Published in the IEEE International Conference on Innovations in Power and Advanced Computing Technologies.
- Implemented OCR system for vehicle number identification from multiple angles and lighting with 93% accuracy.

Smart Classroom Using Deep Learning and IoT

Apr 2022

- Submitted to the Springer Journal of Reliable Intelligent Environments.
- Orchestrated a cutting-edge system comprising of face recognition-based attendance logging, body temperature monitoring, a hand sanitization station, and email reports.

PROJECTS

Low-Code MLOps Python Package | github.com/ar-bansal/squid-ml

Jan 2025 – Feb 2025

- Coded a no-boilerplate Python package for tracking scikit-learn, PyTorch, and TensorFlow training pipelines.
- Integrated Docker and Docker Compose to quickly launch and manage the MLOps infrastructure, improving scalability and portability.

Comparison of Image Compression Techniques | github.com/ar-bansal/image-compression

Oct 2024 - Dec 2024

Systematically compared SVD-based image compression to JPEG2000 compression.

SKILLS

Languages: Python (Pandas, Numpy, Seaborn, Matplotlib, OpenCV, PIL, PyTest), C++, CUDA, HTML, PySpark, SQL Frameworks: ONNX, PyTorch, TensorFlow, scikit-learn, Streamlit, Flask

AI/ML: Computer Vision, Convolutional Neural Networks, Face Recognition, Generative AI, GPU Training, Large Language Models, Retrieval Augmented Generation, Machine Learning, Transfer Learning

Cloud and Development: AWS (CloudWatch, EC2, Glue, Lambda, S3, SQS), Microsoft Azure (Azure AI Services, Storage Containers, VM), Docker, Kubernetes, Google Cloud Platform, Bitbucket, GitHub, Postman, Vast AI

Others: Agile (Scrum, CI/CD), Database Design, Data Cleaning, Data Visualization, Debugging, EDA, Testing, Object-oriented Programming, PostGreSQL, Redis, RESTful API, SDLC, Security, SOLID, System Design