ARUSH JASUJA

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EDUCATION

New York University | Sep 2024 – May 2026
Master of Science, Computer Science | GPA: 3.9/4.0
Current Research: *Advanced Visual Reasoning with Transformers, AI agent driven flood resilience planning*
Guru Gobind Singh Indraprastha University | Sep 2016 – Sep 2020
Bachelor of Technology, Computer Science Engineering | CGPA: 8.0/10.0

PROFESSIONAL EXPERIENCE

Lead AI/ML Software Engineer | Ripik Technology Pvt Ltd | Aug 2022 – July 2024

- Architected end-to-end manufacturing AI platform reducing planning time by 85%, delivering $20M+ annual value across 3,000+ production workers
- Established MLOps infrastructure with CI/CD pipelines reducing model deployment from 14 days to 12 hours with 99.8% reliability
- Designed distributed TensorFlow platform with ONNX Runtime, achieving 20% efficiency improvement ($2M savings) with 99.6% uptime
- Engineered PyTorch-based quality control system with custom YOLOv8 (99.2% precision, 98.7% recall), reducing defects by 18% ($4M impact)
- Developed reinforcement learning system (PPO with custom reward function) for steel optimization, reducing waste by 15% ($15M value)

Deep Learning Engineer | Sequoia Insilico Pvt Ltd | May 2021 – Aug 2022

- Designed microservices architecture for HIPAA-compliant ML systems, reducing inference latency by 65% across 50+ healthcare facilities
- Engineered multimodal CNN-LSTM architecture (8.6M parameters) for depression detection, achieving 85% accuracy (34% above baseline)
- Implemented COVID-19 detection with transfer learning (DenseNet-121), achieving 90% accuracy (87% sensitivity, 93% specificity)
- Built protein structure prediction pipeline with bidirectional LSTM and attention (5.2M parameters), accelerating drug discovery by 40%
- Created explainable AI dashboard using SHAP/LIME, increasing model adoption by 70% with 99.9% uptime for critical healthcare systems

RESEARCH PUBLICATIONS

"Connecting the Dots with Deep Learning: A Graph-Based Approach of Alzheimer's Conversion Prediction" | AAIC (2025)

- Leveraged graph-based deep learning techniques to predict Alzheimer's disease conversion with improved accuracy and interpretability

"Layer-wise Adaptive Sine Activation Based Recurrent Network for MCI Conversion" | AAIC (2025)

- Developed novel recurrent neural architecture using layer-wise adaptive sine activation functions to enhance MCI conversion prediction accuracy and reliability

"Dimension Reduction in the Sagittal Plane for Diagnosis of MCI" | IACC, Springer (2023)

- Pioneered ICA/PCA fusion technique achieving 87% diagnostic accuracy (23% improvement), with 400+ accesses, 45+ citations and implemented at 3 research hospitals

"Emotion Recognition Using Facial Expressions" | IJIRR, IGI Global (2021)

- Developed hybrid ML pipeline: PCA-LBP-SVM for emotion recognition (92.4% accuracy on JAFFE dataset)

"Feature Selection Using Diploid Genetic Algorithm" | Annals of Data Science, Springer (2019)

- Created multi-objective optimization using genetic algorithm reducing feature dimensionality by 67%

TECHNICAL SKILLS / LEADERSHIP & COMMUNITY

ML/DL: TensorFlow 2.x, PyTorch 2.0+, YOLO (v5-v8), SAM, BERT, LLaMA fine-tuning (LoRA/QLoRA), HuggingFace
MLOps: AWS SageMaker, GCP Vertex AI, Docker, Kubernetes, MLflow, Weight & Biases, Ray, Kubeflow
Data: Apache Spark, SQL/NoSQL, ETL Optimization, dbt
Languages: Python (Expert), C++ (Advanced), JavaScript/TypeScript (Intermediate)
Community Builder: Organized 5 AI/ML hackathons (500+ participants); mentored 15+ junior engineers; Presented at SoCTA, AIC, IACC, AAIC in Deep Learning and Medical Imaging
Cultural Festival Chief: Led 120-member team, managed $50K budget (15% under-spending), increased attendance by 35%
Rotaract Club Board: Increased digital engagement by 70%, led initiatives impacting 500+ underprivileged children