

| | | |
|--|---------|--|
| <div><div>Vishak Bharadwaj</div><div>Machine Learning Engineer II</div></div> | | <div><div>vishak.bharadwaj@gmail.com</div><div>+91 9445 3612345</div><div>in@vishak.com/vishakbharadwaj</div><div>Bangalore, India</div></div> |
| Summary | Summary | Summary |
| <p>ML Engineer with 5+ years building data-driven systems across recommendation, deep learning, analytics, and NLP. Proven impact in scaling ML pipelines, improving model accuracy, and productionizing ML systems. Expertise in model deployment, A/B testing, and the full ML lifecycle. Strong foundation in computer vision, NLP, and distributed ML infrastructure.</p> <p>EXPERIENCE</p> <p>Machine Learning Engineer II – II Jul 2022 – Present</p> <p>Company: Bangalore, India</p> <ul style="list-style-type: none">Hybrid Recommendation Engine: Designed and deployed a dual-task learning pipeline that personalized recommendations for two distinct user segments – boosting the relevance of content while serving a 100M user platform. Reduced the "churn" rate by 15% with domain-aware neural embeddings. A two-tower neural model, trained on 100M+ users, scales gracefully handling over 100K+ items and 10M+ interactions, delivering personalized recommendations. Achieved a 95% AUC in cross-validation – suitable for a robust recall system serving diverse user segments.Signal Extraction & Data Pipeline: Harvested sporadic, on-high-volume, noisy event logs (100M+ user signals) to create clear, high-level engagement signals, ensuring downstream ML models were trained on accurate behavioral data. 30 min hourly batch pipeline, not 24/7 real-time streaming.Infrastructure Overhaul: – DDP Built server and offline serving pipelines on Vertex AI with Vertex Feature Store, optimized to 100+ x GPU/GPUs for cost efficiency, while serving probabilistic services and model controllers, interfaced with OpenFeature and TensorFlow.Hyperparameter Optimization: Contributed to a complex A/B testing pipeline, derived robust hyperparameters from extensive cross-validation to ensure statistical significance while keeping latency low.AI Annotation Setup: POC for annotation workflows, GPT-4 based image metadata tagging, with LLM-assisted prompt engineering for category classification, image generation cleanup and post-refinement. <p>Machine Learning Engineer I Nov 2020 – Jul 2022</p> <p>Company: AI, Bangalore, India</p> <ul style="list-style-type: none">Popularity Model: Used linear and L2L2 ensemble model architectures and parallel insights into why models produce the outputs they do, to build and monitor a large MLflow, Prometheus, Grafana and Databricks.Diff-Predictive Models: Created APIs for continuous monitoring of model performance and production data, tracked data and concept drift with custom tools and libraries, built data quality, drift and performance monitors on Prophet, Airflow jobs.Deployment & Infrastructure: Containerized and deployed using Docker, GCP, Kubernetes and AWS EC2, automated workflows on Kubernetes.ML, Analytics: Monitored accuracy, recall, precision – from model understanding and implemented post-production monitoring – enabling clients to detect model degradation early and fast. <p>Machine Learning Intern – Jr Machine Learning Engineer Jul 2019 – Oct 2020</p> <p>Company: The Intel Inside, Bangalore, Karnataka</p> <ul style="list-style-type: none">Built models for security systems for the Intel Eye platform.Real-time face – Real-time Image Processing: Trained deep learning models to process images for object detection, facial recognition and video detection, NVIDIA Jetson for facial detection, TensorFlow/TensorFlow for facial recognition, GPU and data pipelines for video recognition. Trained an experiment with MLflow.Image Search & Clustering: Created a neural network architecture to detect objects and generate embeddings for the feature vectors, trained the Neural Net, created similarity mappings for the feature vectors and the generated embeddings, and the generated embeddings for the feature vectors and the generated embeddings.Student Platform & Evaluation: Developed a platform for tracking student progress (Task, Progress) and created a custom tracking API, integrated Python, ML, and Deep Learning concepts with a code-first, project-oriented approach. | | <div><div>Python</div><div>ML, PyTorch</div><div>TensorFlow</div><div>Deep Learning</div><div>Computer Vision</div><div>NLP</div><div>Image Processing</div></div> <div><div>Skills</div><div>ML, PyTorch</div><div>TensorFlow</div><div>Deep Learning</div><div>Computer Vision</div><div>NLP</div><div>Image Processing</div></div> <div><div>Education</div><div>B.Tech. in Computer Science and Engineering</div><div>2019 – 2022</div></div> <div><div>Deep Learning Specialization</div><div>Andrew Ng, DeepLearning.AI, Coursera</div><div>Neural Networks & Deep Learning</div><div>Hyperparameter Tuning</div><div>Model Deployment</div><div>Model Evaluation</div></div> <div><div>Projects</div><div>1. Recommendation System</div><div>2. Image Classification</div><div>3. Sentiment Analysis</div><div>4. Chatbot</div><div>5. Fraud Detection</div><div>6. Anomaly Detection</div><div>7. Time Series Forecasting</div><div>8. Natural Language Processing</div><div>9. Computer Vision</div><div>10. Reinforcement Learning</div></div> <div><div>AI Projects</div><div>1. Recommendation System</div><div>2. Image Classification</div><div>3. Sentiment Analysis</div><div>4. Chatbot</div><div>5. Fraud Detection</div><div>6. Anomaly Detection</div><div>7. Time Series Forecasting</div><div>8. Natural Language Processing</div><div>9. Computer Vision</div><div>10. Reinforcement Learning</div></div> <div><div>AI Projects</div><div>1. Recommendation System</div><div>2. Image Classification</div><div>3. Sentiment Analysis</div><div>4. Chatbot</div><div>5. Fraud Detection</div><div>6. Anomaly Detection</div><div>7. Time Series Forecasting</div><div>8. Natural Language Processing</div><div>9. Computer Vision</div><div>10. Reinforcement Learning</div></div> |