BHARADWAJ YADAVALLI

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PROFESSIONAL SUMMARY

Experienced principal AI/ML engineer and strategic leader with a track record of guiding high-impact AI initiatives globally.

Skilled in establishing scalable AI frameworks and fostering cross-functional collaboration to align technical innovations with business objectives.

Through strategic leadership, technical innovation, and data-driven decision making, consistently delivers solutions that have a lasting impact.

Additionally, brings 15 years of software and backend engineering experience with 7 years as Principal Engineer prior to transitioning into AI/ML.

SKILLS

- AI/ML Strategy & Leadership
- Data Science Pipeline Automation
- Cross-Functional Team Management
- Performance Metrics & Evaluation

- LLM & Generative AI Development
- AWS and Azure Cloud Cost Optimization
- Deep Learning & Data Science
- Technical Mentorship

WORK HISTORY

07/2024 to Current

Principal AI/ML Engineer
Abbott – Los Angeles

- **Strategic Leadership & Scalability:** Established company-wide algorithmic development standards and a scalable AI toolset, leading to a 30% improvement in project delivery efficiency.
- **Impact Measurement:** Developed a comprehensive AI evaluation framework that increased performance visibility by 25%, aligning technical solutions with business outcomes.
- **Innovative Solutions:** Designed and implemented an LLM summarization system that boosted summarization quality by 20% and reduced turnaround time by 15%.
- **Cross-Team Collaboration:** Presented AI research and strategic implementation plans to multiple internal teams, driving leadership decisions in generative AI deployments.
- **Operational Excellence:** Deployed unsupervised learning models that enhanced actionable insights, improving client engagement metrics by 18%.
- **End-to-End Pipeline Development:** Engineered an ML pipeline for CRM

demand forecasting that accelerated solution delivery by 40% and improved forecasting accuracy by 22%.

09/2023 to 06/2024 **AI/ML Engineer**
Independent Consultant – Plano
- **Optimization & Performance:** Fine-tuned LLMs to enhance language understanding and response precision by 20%.
- **Innovative Integration:** Developed Lang Chain and vector database solutions that improved multimedia content retrieval accuracy by 40%.
- **Advanced Research:** Explored GPT-based architectures and multi-head attention mechanisms, increasing system scalability and performance by 25%.
- **Process Efficiency:** Launched multimodal applications converting YouTube videos to searchable text, reducing transcription and retrieval time by 50%.
- **Enhanced Q&A Systems:** Integrated Retrieval-Augmented Generation (RAG) with Pinecone, boosting Q&A accuracy by 35% through the use of dense vector embeddings and external knowledge integration.

12/2020 to 08/2023 **Machine Learning Engineer / Data Scientist**
Rocket Mortgage – Plano
- **Leadership & Project Delivery:** Spearheaded multiple ML initiatives, increasing on-time project completion by 20% and loan approval accuracy by 15%.
- **Cost Optimization:** Managed 200+ AWS-based ML models, implementing cost-optimization strategies that reduced computational expenses by 25%.
- **Team Development:** Mentored a team of 6 Data Scientists, accelerating model training by 50% and significantly enhancing team productivity.
- **Process Automation:** Streamlined predictive pipelines, reducing manual processing by 50% and increasing data-driven decision-making effectiveness by 25%.
- **Technical Excellence:** Orchestrated neural network deployments using PyTorch and TensorFlow, improving model accuracy by 15% and cutting training time by 20%.
- **Collaborative Efficiency:** Enhanced cross-functional collaboration and communication, driving a 20% improvement in project efficiency across remote teams.

EDUCATION

08/2003 **Master of Science**: **Computer Science**
Villanova University - Villanova, PA

CERTIFICATIONS

- Machine Learning from Stanford (CourseEra)
- Deep Learning specialization from deeplearning.ai
- Natural Language Processing Nano Degree from Udacity
- Computer Vision Nano Degree from Udacity