AMIT MANJARLY

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SUMMARY

Machine Learning Engineer and Data Science graduate student with **3+ years of experience** developing and optimizing AI models using **Python** and **C++**. Skilled in Computer Vision, **NLP**, and **Reinforcement Learning**, with a strong background in performance tuning and convex optimization. Experienced in deploying scalable ML solutions using **PyTorch**, **Docker**, and **Kubernetes**. Passionate about building high-performance AI systems in GPU-accelerated environments.

SKILLS

Languages: Python, C++, SQL, Java, C++
Frameworks & Libraries: PyTorch, TensorFlow, Scikit-learn, TensorFlow, NumPy, Pandas
AI/ML Techniques: CNNs, RNNs, Reinforcement Learning, RAGs, Bayesian Networks, HMMs, Prompt Engineering
Tools & Platforms: Git, Docker, Kubernetes, Apache Kafka, Jupyter, Google Colab
Databases: Hive, Impala, Oracle, Neo4j
Performance & Optimization: Profiling, Convex Optimization, Algorithmic Efficiency

EXPERIENCE

Accenture PLC   Hyderabad, India
Data Engineering Management and Governance Analyst   March 2021 – July 2024
- Engineered and optimized Python scripts by refining core algorithms, achieving a **15% reduction in processing time**.
- Increased data processing **efficiency by 25%** by analyzing complex workflows and implementing strategic improvements.
- Enhanced system stability by troubleshooting and debugging efforts on critical software issues within a large-scale international banking project.
- Coordinated cross-functional team efforts using **JIRA** and **KANBAN** boards to ensure project deadlines were met.
- Collaborated with clients to clarify technical requirements, resulting in improved project alignment and a **20% increase** in client satisfaction.
- Clarified client requirements via meetings, resulting in improved project alignment and a **20% boost** in client satisfaction.
- Participated in **User Acceptance Testing (UAT)** to ensure deliverables met end-user expectations.
- Automated data quality checks with **Python** and **SQL**, improving reliability in model training workflows.

Terminal Trend   Ahmedabad, India
Technical Intern   January 2021 – February 2021
- Acquired proficiency in JavaScript, progressing from foundational to advanced level for front-end development.
- Developed interactive games using HTML, CSS, and JavaScript, demonstrating creativity and versatility.
- Supported deployment on a live project, ensuring seamless client collaboration and integration.

PROJECTS

End-to-End Hybrid Movie Recommendation Engine (Github)   May 2025 – June 2025
- **Improved Precision@10 by 16x** over baseline by developing an optimized SVD & TF-IDF hybrid recommender.
- Implemented a **performance-tuning pipeline** to optimize latent factors, balancing precision with overfitting.
- **Enhanced scalability** by resolving the **cold-start problem** for new users via a content-based suggestion engine.
- Processed raw user ratings into a sparse user-item matrix for model training using **Pandas**.

Image Classification with CNNs and SVMs (GitHub)   September 2024 - November 2024
- Developed and implemented a **custom CNN architecture** using **PyTorch** for complex image classification tasks on **CIFAR-10** datasets.
- Optimized model training performance by evaluating and implementing advanced optimizers like **Stochastic Gradient Decent (SGD)** and **Adam**.
- Built end-to-end machine learning pipelines with **Scikit-learn** for efficient data preprocessing, model training, and evaluation workflows.
- Applied **Principal Component Analysis (PCA)** for effective dimensionality reduction, improving feature space efficiency.

EDUCATION

Arizona State University   Tempe, Arizona, USA
Master of science in Data Science, Analytics and Engineering   August 2024 – May 2026
Gujarat Technological University   Ahmedabad, India
Bachelor of Engineering in Computer Engineering   August 2015 – June 2019