

Ronit Amar Bhatia

roncy.bhatia@gmail.com | +1 310-956-7419 | [LinkedIn](#) | [GitHub](#) | [Personal Website](#)

Education

Cornell University Master of Engineering in Engineering Management	Aug 2024 – May 2025
University of California, Davis Bachelor of Science in Computer Science Minor in Technology Management	Sept 2020 – June 2024

Experience

Machine Learning Engineer Intern , QAlienAI (Remote) <ul style="list-style-type: none">Developed an LLM-driven compliance system using semantic similarity and rule-based checks for regulatory review.Designed multimodal inference pipelines using AWS Bedrock and AssemblyAI, increasing OCR and ASR accuracy by 15%.Engineered a scalable semantic search layer with pgvector, optimizing embedding generation and hybrid retrieval to enable high-precision access to regulatory text.	Oct 2025 – Feb 2026
Software Engineer Intern , Gallox Semiconductors (Remote) <ul style="list-style-type: none">Developed automation solutions for power device characterization, improving testing efficiency by 35%.Engineered a real-time data visualization system in Python, accelerating debugging and analysis during lab evaluations.Developed Python APIs to interface with lab instruments, automating data acquisition and control during device testing.	Nov 2024 – Jan 2025
Student Research Assistant , Cornell CALS <ul style="list-style-type: none">Utilized k-means clustering and regression to analyze crop-level GHG emissions, improving pattern detection by 30%.Built Python data pipelines to preprocess geospatial crop emissions data, enhancing feature consistency for ML models.Implemented clustering models to group crops by emission intensity, enabling targeted mitigation strategies.	Aug 2024 – Dec 2024
Software Developer Intern , ColentAI (Remote) <ul style="list-style-type: none">Enhanced generative AI model performance by 20% through targeted fine-tuning and hyperparameter optimization.Integrated external APIs to streamline data acquisition and improve training efficiency for AI models.Automated skill taxonomy generation with NLP and keyword extraction, increasing classification accuracy by 25%.	Jan 2024 – Mar 2024

Projects

UnClogAI: AI-Powered Workflow Bottleneck Detector [GitHub] <ul style="list-style-type: none">Developed an AI workflow automation tool using graph analytics to detect bottlenecks and improve process efficiency.Designed a multi-agent system with LangGraph and Hugging Face LLMs for predictive insights and risk assessment.Optimized data pipelines and graph computations to enable efficient, real-time workflow analysis at scale.	Aug 2025 – Sept 2025
Startup Planner Agent: AI-Powered Strategic Planning Tool [GitHub] <ul style="list-style-type: none">Designed a modular multi-agent architecture using Python to orchestrate local LLM tasks with LLaMA 3 via Ollama.Built agent-based workflows to automate startup analysis, including market research, SWOT, and MVP planning.Delivered an interactive web app with exportable outputs, enabling offline strategic planning and stakeholder readiness.	June 2025 – June 2025
Excellensight: AI-Powered Feedback Analyzer , Cornell University [GitHub] <ul style="list-style-type: none">Built a custom CNN-BiLSTM-Attention model to classify ChatGPT user reviews and generate insight summaries without using large language models.Built a full NLP pipeline covering preprocessing, training, evaluation, and automated Markdown/HTML reporting.Achieved over 98% validation accuracy on 10K+ reviews; reports include key trend summaries and visualizations.	Mar 2025 – May 2025
Taskify: AI-Powered Task-to-Team Member Matching [GitHub] <ul style="list-style-type: none">Built a Transformer model fusing embeddings and structured data to predict task-member fit with 89.6% accuracy.Generated and labeled a synthetic dataset (40K+ samples) using sentence-transformers and feature engineering.Deployed a real-time Streamlit app to recommend top-ranked teammates with confidence scores and reasoning logic.	Mar 2025 – May 2025

Technical Skills

Programming Languages: Python, C/C++, SQL, Go, JavaScript, HTML, CSS, Lisp, Prolog, MicroPython
Machine Learning & AI Tools: TensorFlow, PyTorch, Scikit-learn, LangChain, Ollama, LangFuse, LangGraph, Strands Agents, AWS Bedrock, AssemblyAI, Resend
Tools & DevOps: Next.js, React, Node.js, Supabase, Clerk, TanStack Query, Docker, GitHub, GitHub Actions, VSCode, MATLAB, JIRA, Power BI
Cloud Platforms: Vercel, AWS (S3, EC2, Lambda, SageMaker, RDS, DynamoDB), GCP (BigQuery, Vertex AI, Cloud Run)