

Ronit Amar Bhatia

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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

Software Engineer Intern , Gallox Semiconductors (Remote) <ul style="list-style-type: none">Developed automation solutions for power device characterization, improving testing efficiency.Designed a real-time data visualization tool for test measurements using Python, improving debugging efficiency during lab evaluations.	Nov 2024 – Jan 2025
Student Research Assistant , Cornell CALS <ul style="list-style-type: none">Utilized machine learning techniques (k-means clustering, regression models) to analyze crop-based GHG emissions.Developed Python scripts to streamline the preprocessing of geospatial crop emissions data, improving consistency across datasets.Implemented a clustering algorithm to group crops by emission intensity, enabling more targeted mitigation strategies.	Aug 2024 – Dec 2024
Software Developer Intern , ColentAI (Remote) <ul style="list-style-type: none">Enhanced generative AI model performance through fine-tuning and hyperparameter optimization.Conducted API research and integration to enhance data gathering and model training.Developed an automated skill taxonomy generator using natural language processing and keyword extraction.	Jan 2024 – Mar 2024
Data Analyst Intern , Cardinality-AI (Remote) <ul style="list-style-type: none">Ingested and transformed structured data using SQL to support machine learning pipelines.Performed feature engineering and data validation to improve model response time by 5%.Leveraged MATLAB to identify and interpret trend patterns in complex data sets.	June 2021 – Sept 2021

Projects

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.Developed a full NLP pipeline: preprocessing, model training, evaluation, and automated Markdown/HTML report generation.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 , Cornell University [GitHub] <ul style="list-style-type: none">Built a custom Transformer model combining embeddings and structured features to predict task-member compatibility 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
GDELT AI Monitoring System , Cornell University [GitHub] <ul style="list-style-type: none">Built ETL pipeline for real-time GDELT data, storing embeddings in ChromaDB for efficient vector retrieval.Integrated Llama 3B model using Ollama for summarization and investment recommendations based on geopolitics.	Mar 2025 – Apr 2025
Rock Paper Scissors CNN on ESP32S3 , Cornell University <ul style="list-style-type: none">Trained and deployed a lightweight CNN on-device (ESP32S3) using MicroPython and TinyMaix for real-time gesture recognition.Achieved 56%+ accuracy on-device across labeled test images with live demo performance.	Feb 2025 – Mar 2025

Technical Skills

Programming Languages: Python, C/C++, SQL, Go, JavaScript, HTML, CSS, MicroPython, Lisp, Prolog
Machine Learning & AI Tools: TensorFlow, PyTorch, Scikit-learn, LangChain, Ollama, PydanticAI, Unsloth, Windsurf
Tools & DevOps: Git, GitHub, Docker, VSCode, MATLAB
Cloud Platforms: AWS, Google Cloud Platform (GCP)