Alba Samsami
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EDUCATION

University of Cincinnati — Expected Graduation: Aug 2026
Major: Bachelor of Science in Computer Science — GPA: 3.5
Minor: Entrepreneurship and Family Businesses

TECHNICAL SKILLS

- **Programming Languages and Frameworks**: C++(Object-oriented Programming), Python, JavaScript, Java, LabView, Keras, TensorFlow, PyTorch, MatLab, Selenium, Electron
- **Artificial Intelligence and Machine Learning:** Natural Language Processing, Large Language Models, Transformer Architecture, Math for Machine Learning, Data Processing, Fine-tuning, Regression Analysis, Agno
- **Tools & APIs:** Outlook API, Azure, Fast API, PostgreSQL, qTest, Docker, Datto, Axcient, Acronis, Barracuda, Datto RMM, Augmentt, Connectwise Manage, Connectwise Sell, IT Glue, Vonahi, ID Agent, Zoominfo

EXPERIENCE

Software Engineer Intern, Capgemini — Jun 2025 – Aug 2025

- Built an agentic AI platform with a team of three to automate the QE lifecycle, integrating a backend for data ingestion, modular AI agents for analysis, and a frontend UI for displaying structured requirements, related stories, test and risk insights
- Designed a backend system that integrates with qTest and PostgreSQL to ingest and manage requirement and test data
- Developed AI agents using Agno to convert raw requirements into structured fields (persona, story, functionality), identify cross-story relationships, generate common test cases with regression and impact analysis

IT/Software Engineer Intern, ZZ Computer — Jan 2025 – May 2025

- Developed an AI agent solution as a cross-platform desktop app using Electron, Outlook APIs, and OpenAI models to intelligently detect scheduling intent in emails, extract meeting details, and automate calendar management with minimal user input
- Delivered remote IT support, handled account access issues, and created training resources to improve client self-sufficiency and reduce recurring tickets
- Generated performance reports, tracked client issues, and used ZoomInfo to identify and onboard new clients to available IT services

PROJECTS

Edge AI Accelerator, Startup Weekend | Third Place Winner — Jan 2025 – Jan 2025

- Developed and pitched the concept for a flexible Edge AI accelerator with a new architecture to optimize AI processing locally
- Created a compelling pitch deck showcasing the product's market potential, technical feasibility, and business strategy
- Delivered a cogent presentation to entrepreneurs from Cincinnati, earning third place among multiple competing teams

Fit-Plant — Sep 2024 – Nov 2024

- Designed and developed a digital soil meter integrating NPK, light, and soil moisture sensors with an ESP32 chip, enabling real-time data collection and analysis
- Built a web application using Python, React, and Tailwind CSS to display sensor data, compare readings to optimal plant care parameters, and provide actionable advice to users
- Conducted market research and created a pitch deck to present the project to local entrepreneurs, showcasing its innovation and commercial potential as part of an entrepreneurship challenge

Custom GPT Language Model — Jul 2024 – Aug 2024

- Built a GPT-inspired language model from scratch using PyTorch, and trained on custom datasets for text generation
- Implemented transformer architecture with multi-head self-attention, and achieving efficient token-based predictions
- Optimized model training with memory mapping and dynamic batching, reducing training time

NLP Text Classification — Jun 2024 – Jun 2024

- Executed a deep learning architecture including embedding, pooling, and dense layers, utilizing binary cross-entropy loss and Adam optimizer for training
- Developed a sarcasm detection model using TensorFlow/Keras, tackling a complex NLP task that involved understanding the subtle nuances in textual data

Chest X-ray Analysis Program, Revolution UC — Feb 2024 – Feb 2024

- Trained a Convolutional Neural Network model with over 5000 chest X-ray images using TensorFlow library
- Achieved high accuracy (epochs: 100, batch size: 16, learning rate: 0.001) through parameter optimization
- Applied a user-friendly interface using Streamlit library for healthcare professionals