

Akash Danda

akashdanda06@gmail.com | [linkedin.com/in/akash-danda](https://www.linkedin.com/in/akash-danda) | [Personal Website](#)

EDUCATION

University of Illinois Urbana-Champaign

Champaign, IL

Computer Science + Anthropology, 3.8 GPA

May 2027

Relevant Coursework: Data Structures and Algorithms, Calculus III, Linear Algebra, Discrete Structures, OOP in C++, OOP in Java, Statistics and Probability, Software Design Lab

EXPERIENCE

Software Intern

May. 2025 - Aug. 2025

Tightrope Interactive

San Francisco, CA

- Validated & labeled financial documents to uptrain custom OCR models on GCP, **achieving a 0.91 F1 score**
- Fine-tuned YOLOv11 model on **17k+ PDFs** to detect layout type(**0.79 accuracy**) & improve OCR performance
- Created LLM-powered APIs in Python with Streamlit & Flask to validate **100K+ PDFs**; **boosted token efficiency & throughput by 110%** via batch processing; Leveraged Docker for scalable deployment
- Integrated Azure Document Processing and Google Cloud Vision SDKs to manage large-scale document workflows

Software Engineer

Aug. 2024 - Present

Disruption Lab at Gies

Champaign, IL

- Developed real-time lip syncing algorithm for VR by analyzing the volume of WAV outputs from TTS API
- Optimized player movement in Unity by implementing C# scripts **improving frame rate stability by 25%**
- Implemented a graph backend with Neo4j for client project management & dependency tracking
- Built a frontend using React, Next.js, and Tailwind CSS to provide interactive visualization for projects

Software Lead & Vice President

Aug. 2022 - April 2024

First Robotics Competition 9125

Livermore, CA

- Enhanced autonomous scoring by 100%** through the integration of computer vision algorithms and control loops, enabling real-time object detection and precise robot alignment.
- Led development of scalable Java systems and fine-tuned PID control logic, **cutting latency by 30%**

PROJECTS

Transformer Translator | PyTorch, Hugging Face, Tokenizers, TensorBoard

Aug 2025 - Present

- Implemented a Transformer architecture from scratch in PyTorch for English-Spanish translation, including encoder-decoder framework, multi-head attention, feed-forward layers, and residual connections
- Built a custom bilingual dataset pipeline(93k sentence pairs) leveraging Hugging Face's opus books corpus with word-level tokenization, special tokens, and sequence padding for training
- Designed a PyTorch Dataset class with encoder, decoder, and causal masks for autoregressive translation training
- Developing training & validation pipelines with Adam optimizer & TensorBoard monitoring to track performance

LicenseTracker | YOLOv11, Roboflow, Streamlit, AWS EC2, S3, Textract

Aug. 2025

- Fine-tuned YOLOv11 on **10k+ license plate images**, achieving **mAP@50 of 0.96** for high-accuracy detection
- Built a real-time recognition system using AWS Textract and Streamlit for OCR-based output
- Deployed the system on AWS EC2; image storage and retrieval through AWS S3 buckets for scalability

SmartSend | JS, Chrome Extensions API, Node.js, OpenAI API, HTML, CSS

July. 2025

- Built Chrome extension with Manifest V3 for AI-driven email replies using the OpenAI API & DOM extraction
- Developed a Node.js + Express backend to securely route API calls and manage request handling

Therapist.AI | React, Node.js, Firebase, HTML, CSS, OpenAI API

June. 2025

- Built AI-driven mental therapy platform using GPT LLM to facilitate interactive therapy sessions
- Utilized React and Node.js for full-stack development and Firebase for authentication/data storage

TECHNICAL SKILLS

Languages: Python, Java, C++, C#, Javascript, HTML, CSS, SQL, Cypher

Frameworks/Libraries: React, Node.js, Express, Flask, Django, Streamlit, Firebase, Next.js, Tailwind CSS, Pandas, NumPy, Ultralytics, Matplotlib, Neo4j, WPilib, Sci-kit Learn, Pytorch

Developer Tools: Git, Docker, Microsoft Azure, Google Cloud Platform, AWS, Linux, Google Colab, Thunder Client

Awards: Eagle Scout, USACO silver, FRC Highest Rookie Seed @ Worlds, 1st at ITF Taekwondo Nationals