Anthony Campos

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Education

Northeastern University, Khoury College of Computer Sciences

Boston, MA

Candidate for Bachelor of Science Degree in Computer Science and Business Administration Science and B

September 2023 - May 2027

GPA: 3.71

Technical Knowledge

Languages: Java, HTML/CSS, Python, JavaScript, Typescript, SwiftUI

Technologies/Frameworks/Tools: Git, React Native, Next.js, React.js, Expo, Firebase, Supabase, Flask, Tailwind CSS, Framer Motion, Anthropic API, OpenAI API, RAG, HuggingFace, ChromaDB, AWS, Stripe, ShadcnUI, GroqCloud API

Experience

Operations Manager & Lead of NLP Research Project

preprocessing, machine learning, and neural networks.

September 2024 - Present

Al Perception Research Lab

In-Person

- Managing operations at the Al Research Lab and Leading a research project on uncertainty-aware dialogue systems, focusing on probabilistic reasoning and adaptive conversational Al.
- Developing uncertainty estimation methods and integrating knowledge graphs to enhance contextual understanding.
- Exploring Bayesian Neural Networks, Variational Inference, and adaptive strategies for personalized dialogue responses.

E-Board Member

April 2024 - Present

Northeastern AI Club In-Person

- Developed and executed a comprehensive 4-session Al bootcamp, focusing on foundational mathematics, data
- Built movement scripts for Pololu robots in SwarmScape, enabling disease detection with Google Vertex Al.
- Built a Python-based tool with OpenAl API integration, featuring a custom algorithm and responsive frontend, to generate
 personalized professor rankings; delivered a functional prototype in 48h in Hackathon -- reached final 4 out of 27 teams

Data Analyst Internship

April 2024 - June 2024

Aspire Institute Remote

- Analyzed key metrics (click rates, open rates, themed content performance) from Aspire Institute's alumni newsletter and weekly digests, providing suggestions to enhance engagement and adapt content flow to help reach their goal of impacting 1,000,000 young leaders annually by 2027.
- Utilized Excel and Tableau to analyze data, creating visualizations, and reports to effectively communicate findings, contributing to Aspire Institute's global impact across 180+ countries and 100K+ young adults' lives impacted.

Projects

Modular Personal Al Memory Bank

December 2024

- Designed a modular memory bank system enabling text message summarization and NLP-driven search capabilities.
- Implemented a RAG model using HuggingFace's sentence-transformers, ChromaDB, and Claude to provide semantic search, date filtering, and personalized AI responses.

<u>Logistics Optimization with Intelligent Loading Algorithms</u>

September 2024

- Developed an intelligent loading optimization platform, built with CloudConvert, AWSTextract, Anthropic's API (Claude), experimenting with better greedy algorithms for more efficient loading instructions.
- Deployed at Moran Logistics which has 5 million square feet of warehouse space, located in PA to reach 60% of North America's population within 8h; it was built specifically for their customer who handles Target's supply of cardboard.

Automated Academic Management Platform

June 2024

- Developed Nota, a comprehensive mobile application for students using React Native and Expo, with Appwrite as the backend, streamlining academic organization and planning.
- Integrated AWS Lambda functions to efficiently process and parse student schedules and transcripts, reducing server costs by 40% compared to traditional OCR methods.
- Leveraged Anthropic's API (Claude) for data extraction from uploaded documents allowing students to copy-paste their schedules and transcripts, reducing onboarding time from 30 minutes to under 5 minutes.

Scalable Food Delivery System with Payment Integration

March 2024

- Built an MVP using Flask, HTML/CSS, and Stripe API to provide affordable food delivery for students.
- Leveraged a subscription-based model to reduce delivery costs by up to 50%.
- Launched with 40+ orders and significant site traffic; now developing full stack iOS app with SwiftUI, Flask, and MySQL.