

Ken Lu

Brooklyn, NY | kenlu519@gmail.com | [linkedin.com/in/ken](https://www.linkedin.com/in/ken) | github.com/ken | ken-lu.dev

EDUCATION

Binghamton University, State University of New York

Bachelor of Arts in Mathematical Sciences

Binghamton, NY

Aug. 2020 – May 2024

EXPERIENCE

Software Engineer Fellow

Aug. 2024 – Sept. 2024

Headstarter AI

- Built and deployed 5 AI projects in 5 weeks using React JS, Next.js, Firebase, Clerk, and Vercel, following agile methodologies with weekly sprints and incorporated CI/CD practices for iterative deployment
- Worked in a team of 3 to develop an interactive customer support agent using Next.js, integrated a custom RAG pipeline using OpenAI and Pinecone that responds based on a company's knowledge base
- Implemented a web scraper that automatically extracts data and upsert to a Pinecone index, integrated with a RAG pipeline using LangChain and OpenAI GPT-4o to get up-to-date and relevant answers to user queries

Full Stack Software Engineer

July 2024 – Aug. 2024

Freelance

- Designed and developed an eCommerce web application using Ruby on Rails, leveraging Active Record to efficiently manage product listings, user accounts, and transactions, contributing to a 30% increase in online sales
- Integrated secure payment gateways with Stripe API, processing over \$500 in sales per month
- Collaborated with client to enhance the user interface and functionality using Hotwire and StimulusJS, which contributed to a 20% growth in the customer base by improving user engagement and experience

PROJECTS

ChatPDF | *Personal Project*

Sept. 2024 – Present

- Built a RAG-based web app enabling users to upload PDFs and interact with their documents via an AI chatbot
- Developed custom RAG pipelines using LangChain and OpenAI models, which improved the chatbot's response accuracy by 30% and increased query relevance to over 85%, providing more precise answers to user queries
- Utilized Pinecone vector storage to enhance document search performance through efficient similarity search

Flash Prep AI | *Co-Founder — Revenue Project*

Aug. 2024 – Sept. 2024

- Created and launched an AI-powered flashcard application using Next.js, React, and TypeScript, integrating OpenAI for content generation and Clerk for user authentication, serving over 200 active users
- Implemented Stripe for payment processing, achieving a 10% conversion rate for premium plans

Haive | *Team Project*

July 2024 – Aug. 2024

- Developed Haive, an AI chatbot platform with specialized chatbots for various fields, each utilizing a tailored RAG pipeline with Pinecone and OpenAI API to enhance conversational capabilities
- Implemented a modern UI using Next.js, React, and MUI, featuring user authentication and chat history management, deployed on AWS EC2, leading to a 50% reduction in load times and a 99.9% uptime

HACKATHONS & ACHIEVEMENTS

Hiring Hackathon for Rilla | *Finalist — 200+ Teams — 36 Hour Hackathon*

Aug. 2024 – Sept. 2024

- Developed a sales transcript annotation tool for a hackathon using TypeScript, React, and Next.js, implementing features for annotating, commenting on transcripts, and AI summarizing
- Built a RAG pipeline with OpenAI and GPT LLM for AI summarizing, significantly boosting the tool's accuracy, efficiency, and contextual understanding in generating high-quality summaries

University Club Match Quiz | *1st Place Winner — 100 Teams — 24 Hour Hackathon*

Jan. 2024 – Feb. 2024

- Developed a club match quiz for Binghamton University using Cheerio for web scraping, and HTML, CSS, and JavaScript for the frontend, improving quiz accuracy by 20% and user engagement by 30%
- Collaborated in a team of 4 to integrate web scraping, data conversion, and personalization algorithms

TECHNICAL SKILLS

Programming Languages: JavaScript, Ruby, Python, TypeScript, R

Frameworks/Libraries: React, Rails, Nextjs, Material-UI, NumPy, RSpec, Jest

Technologies: AWS, Langchain, Firebase, Postman, Git, Linux