Ankit Poudyal

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EDUCATION

University of Virginia
Charlottesville, VA
B.S. in Computer Science, 3.73 GPA
Expected May 2026

EXPERIENCE

Software Engineer Intern
June 2024 – August 2024
Alarm.com
McLean, VA

- Enhanced internal chatbot using TypeScript and React, integrating Azure OpenAI Assistants for file uploads and algorithmically switching between APIs based on query complexity, improving response times for 2,000+ employees
- Developed and integrated metrics to track response time, error occurrences, and sentiment surveys to track user engagement, including visualizations supported by Wavefront to provide valuable insights
- Integrated Retrieval-Augmented Generation (RAG) with company Confluence documentation using cosine similarity to identify and link relevant documents, reducing information search time by approximately 35%

Software Engineer Intern
January 2024 – May 2024
Vytal
Remote

- Built a Flask backend with MongoDB that seamlessly integrated with a React Native app to securely manage biometric data, utilizing AES-256 encryption and role-based access control
- Leveraged OpenAI API and Apple Health data to provide personalized health recommendations and implemented biometric tests for various eye movements to get comprehensive health insights
- Implemented an eye-tracking API dashboard with Stripe integration for billing, enabling users to access real-time analytics on usage and financial transactions

PROJECTS

Smart Health Assistant | *SwiftUI, Vision, Core ML, HealthKit, CloudKit*

- Integrated workout, weight, calorie, and step tracking using SwiftUI, offering users a seamless and detailed overview of their health and fitness progress
- Utilized Vision framework for barcode scanning of over 3 million foods, enabling users to track macronutrient breakdown and dietary intake, and integrated CloudKit for real-time data synchronization across devices
- Used Core ML to analyze weight, calorie, and step data from HealthKit, providing personalized fitness and dietary recommendations based on user activity and historical data

Real-Time Translation Chat | *TypeScript, Angular, Firebase, LibreTranslate*

- Designed a multilingual chat platform using Angular, allowing users to establish chat rooms and invite others through links, with built-in automatic translation enhancing cross-language user interaction
- Implemented a backend translation system using LibreTranslate, processing and storing messages in user-specified languages, ensuring translations for over 30 languages are accurate
- Utilized Firebase to facilitate instant, real-time communication between users, enabling seamless message exchanges that are immediate and responsive, with translations completed in under 2 seconds

Automated Shopping Application | *Node.JS, Express, Electron, MongoDB*

- Launched an automated shoppping application using Electron for frontend design and Node.JS for backend integration, which supported over 250 online stores and processed $50,000 in transactions over 7 months
- Devised a RESTful API with Express that supported user authentication, enabled automatic platform updates, and incorporated anti-tampering security features, serving over 300 active users
- Created a real-time checkout analytics system using MongoDB, tracking user transactions to identify peak times, purchasing trends, and bottlenecks, enabling optimization of heavily utilized modules

SKILLS

Tools and Technologies: Git, GitHub, AWS, Docker, Node.js, React, Angular, Django, Flask, Linux (Ubuntu, Debian)
Programming Languages: Python, C, C++, C#, JavaScript, SwiftUI, Java, SQL (MySQL, SQLite), Bash, TypeScript
Relevant Coursework: Machine Learning, Linear Algebra, Computer Systems and Organization, Data Structures and Algorithms, Discrete Mathematics and Theory
Certifications: Microsoft Office Specialist Master (MOS)