

YiAn Chen

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EDUCATION

University of Pennsylvania Jan 2025 - May 2026	Philadelphia, PA
Master of Science in Engineering, Artificial Intelligence	
Stevens Institute of Technology Sep 2024 - May 2026	Hoboken, NJ
Master of Science, Applied Artificial Intelligence (Software Engineering Concentration)	
Northeastern University Jan 2022 - May 2024	San Jose, CA
Master of Science, Computer Science GPA: 3.96/4.0	

WORK EXPERIENCE

Stevens Institute of Technology (Schaefer School of Engineering)	Hoboken, NJ
Research Assistant	Sep 2024 – Present
<ul style="list-style-type: none">Implement knowledge graph compression on graph Retrieval Augmented Generation with Llama-3-70B-Instruct	
Northeastern University (Khoury College of Computer Science)	San Jose, CA
Lead Research Assistant; paper accepted and peer reviewed, awaiting publication at HCI-COLLAB 2024	Jan 2024 – Aug 2024
<ul style="list-style-type: none">Designed a concurrent, multi-threaded system to automate the aggregation and categorization of news incidents and developed interactive data visualization interface using reactive programmingDeveloped novel classification framework leveraging LLMs with prompt engineering to fill out 70% missing fields and improved accuracy by 450%	
Amazon	San Francisco, CA
Software Development Engineer Intern (Amazon Music Royalties Calculation Engine Team)	May 2023 – Aug 2023
<ul style="list-style-type: none">Deployed end-to-end system that flags discrepancies in worldwide vendor and user data leveraging various AWS tools, automated with Apache Airflow orchestrator, impacting over 82 million end-users globallyDeveloped internal and external GET and WRITE RPC APIs in Kotlin using dependency-injection with Google GuiceStreamlined big data aggregation with Apache Spark in Scala to output to AWS S3 through EMR serverless	
Starts Foundation	Remote
Full-Stack Developer/Project Leader of team of five	Oct 2022 – Present
<ul style="list-style-type: none">Deployed a serverless full-stack web app for the Starts Foundation leveraging React, Gatsby, Node.js, Express.js, MongoDB, and GraphQL to support humanitarian relief in NepalDesigned and built a Content Management System to streamline user experience and content generation	

TECHNICAL SKILLS

Programming Languages: Java, Python, C/C++, JavaScript, Kotlin, SQL
Databases: MongoDB, PostgreSQL, Redis, Liquibase, MySQL, Amazon Aurora, Firestore, Neo4j, Elasticsearch
Frameworks/Tools: AWS, GCP, Docker, React, Kafka, Spring, Django, Google Guice, Gradle, Next.js, Spark, Airflow, Firebase
Software Development: Distributed and Parallel Computing, API Development, Web Development, Full-Stack Development, CI/CD

SELECTED PROJECTS

eBay 2024 Machine Learning Competition - Identify motor parts to vehicle compatibility; 3rd on leaderboard	Sep 2024 – Nov 2024
Processed data with NLP (N-grams, embeddings); fine-tuned FLAN-T5 and Longformer models for year, model, make extraction	
Gemini API Developer Competition - Deployed Flutter app that personalizes place recommendations	June 2024 – Aug 2024
Designed recommendation system and AI tour guide with Gemini APIs using Flask for full-stack customized place-discovery app	
LLM Compatibility Test App - Deployed app that leverage LLM to flag Android and iOS application issues	Jan 2024 – April 2024
Deployed Docker image of backend Django app on AWS ECS using continuous integration and deployment with Github Actions	
Distributed Systems Project - Multi client-server distributed systems	Dec 2023 – Jan 2024
Built a multi-client-server distributed application in Golang using a distributed microservices based cluster over TCP protocols	
Prognosis of Diabetes Early Readmission - Data mining project training machine learning models for prediction	Nov 2023 – Dec 2023
Leveraged data mining techniques and trained six machine learning models to stack and improved model performance by 10%	
Friend Recommendation System - Data mining project that recommends social network friends	Oct 2023 – Oct 2023
Developed friend recommendation system using MapReduce and Apache Spark for large-scale parallel processing	
Cordiance Experiential Project - Natural language processing and advanced algorithm project for data analysis	Nov 2022 – Dec 2022
Implemented advanced string matching algorithm and designed 4-level prefix tree data structure to classify large industry datasets	
Tutor Match App - MERN stack web app for users to search, match, reserve tutors	Oct 2022 – Nov 2022
Deployed responsive Node app using React and implemented login, search, tutor-booking, scheduling, and membership endpoints	
Steganography Project - Full-stack web app that encodes and decodes secret messages in image pixel bits	June 2022 – Aug 2022
Implemented backend encryption and decryption APIs with Java Spring Boot with multi-factor authentication	
Meter Ethereum Hackathon - Scalable decentralized web app for users to create/mint/trade NFTs	Feb 2022 – April 2022
Deployed smart contract to the Meter sidechain with Solidity and Ethers.js that increased 60x node transactions rate against Ethereum	