

WENJIA ZHANG

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EDUCATION

Columbia University in the City of New York

NY, US

M.S. in Computer Science - Machine Learning Track

May 2024

- Core Courses: Natural Language Processing; Machine Learning; Deep Learning; Computer Vision; AI; Database; Cloud Computing; Engineering Software-as-a-Service.

University of Electronic Science and Technology of China

Sichuan, China

B.S. in Information Security

Jun 2019

- Core Courses: Data Structure and Algorithm; Computer Network; Operating System; Programming with C/C++; Network Security; System Security; Web Security; Cryptography.

TECHNICAL SKILLS

- **Python Dev:** Python, Flask, Tkinter, Web Scraping (BeautifulSoup, Selenium), Data Science (NumPy, Pandas, Matplotlib, Scikit-learn), Machine Learning (TensorFlow, PyTorch), Cloud Deployment (Heroku, AWS, GCP), Git, Linux
- **Full-Stack Dev:** HTML, CSS, JavaScript, React.js, Node.js, Express.js, REST APIs, SQL, PostgreSQL ([Udemy Certified](#))
- **iOS Dev:** Swift, SwiftUI, UIKit, ARKit (Augmented Reality), CoreML, CreateML, AVFoundation ([Udemy Certified](#))

WORKING EXPERIENCE

CloudStride Consulting LLC

New Jersey, US

Software Engineer

Sep 2024 - Present

- Developed a **timer** in **Python & Tkinter**, enabling users to schedule work and break intervals for enhanced productivity. ([Demo](#))
- Built a **workout tracking** system in **Python**, leveraging **Nutritionix API** for natural language processing to auto-convert input into structured data stored in Google Sheets. ([Demo](#))
- Created a **video editor** app with **AVFoundation & AVKit**, allowing users to trim videos, add text, record voice and apply overlays. ([Demo](#))
- Developed a **weather** app using **Swift**, **OpenWeather API** and **GPS** data to provide real-time weather updates with automatic day/night mode. ([Demo](#))
- Built a **chat** app with **Firebase Firestore** (NoSQL DB), and **Firebase Authentication**, supporting real-time messaging. ([Demo](#))

China Mobile Communications Group Co.,Ltd.

Anhui, China

System Support Engineer, Business Support Center

Jul 2020 - Sep 2021

- **Led** the development of a high-volume cloud-based e-commerce platform using **React.js & Python**, integrating a **collaborative filtering recommendation algorithm** based on personal behavior, **increasing monthly revenue by 1.8%**.
- Maintained **RESTful APIs** with multi-threading & concurrency, ensuring real-time data security and high availability.
- Familiar with **OSI Model**, **TCP/IP**, **HTTP**, **DNS** and secure communication protocols such as **SSL/TLS**.
- Managed over 1M+ user records via **MySQL**, enforcing Role-Based Access Control (**RBAC**) to restrict unauthorized access.
- Collaborated with a 12-person team, applying **agile** development methodologies to enhance system performance and security.

PROJECTS

Movie Chatbot Development Using MongoDB ([Certificate](#))

Apr 2024 - Apr 2024

- Ingested movie data into **MongoDB Atlas** and converted it into **vector embeddings** for enhanced retrieval.
- Developed a backend with Express.js and RAG-based AI retrieval using OpenAI API.
- Built a React.js frontend for users to interact with the chatbot and receive movie-related answers.

Intelligent Search Optimization and Data Mining on GCP ([Code](#))

Jan 2024 - Apr 2024

- Implemented NLP search enhancement using Google Search API, **SpaCy**, and **SpanBERT** for entity recognition.
- Demonstrated **LLM**-powered search prediction, improving efficiency and query understanding.

Collaborative Development of a Second-Hand Marketplace ([Code](#))

Oct 2023 - Dec 2023

- Led a 4-person team to develop a second-hand marketplace with **Ruby on Rails**, React.js, and **microservices**.
- Built REST APIs for product listings and authentication(including Google OAuth), deployed on **AWS EC2**, with a responsive UI hosted on **AWS S3**.
- Built an automated **CI/CD** pipeline with Jenkins, achieving 100% test coverage with RSpec & Cucumber (**BDD & TDD**).