

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; Large Language Models; Deep Learning; Computer Vision; AI; Database; Cloud Computing; Engineering Software-as-a-Service; Cryptography.

University of Electronic Science and Technology of China

Sichuan, China

B.S. in Information Security

Jun 2019

- Honor: 3rd Prize Scholarship.
- Core Courses: Data Structure and Algorithm; Computer Network; Operating System; Programming with C/C++.

TECHNICAL SKILLS & LANGUAGES

- Tech Skills: Python, Linux, C++, SQL, TensorFlow, PyTorch, Ruby on Rails, HTML, CSS, JavaScript, Testing, React, NoSQL(MongoDB), AWS, Google Cloud Platform, Distributed System, Microservice, Node.js, Git, Swift.
- Languages: Chinese (native), English (proficient).

WORKING EXPERIENCE**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 e-commerce platform on China Mobile Cloud, employing large-scale application skills, like HTML, CSS, JavaScript, jQuery, and Bootstrap for the frontend, and Python/Django for the backend. Integrated a collaborative filtering recommendation algorithm, driving a 1.8% monthly revenue increase.
- Designed and maintained robust APIs for real-time data interaction, significantly contributing to system scalability and responsiveness, foundational in distributed systems.
- Developed a desktop tool predicting potential 5G subscribers using decision trees, which reduced 5G plan acquisition costs by 6.7% within three months. The user-friendly interface (HTML/CSS/JS) simplifies employee interaction.
- Managed databases for over 1,000,000 customer profiles, ensuring data integrity and high performance.
- Collaborated with a 12-person team to implement Tableau for data visualization, supporting the sales of China Mobile Cloud products to enterprise customers.
- Implemented Git for version control and streamlined deployment processes using CI/CD practices, improving workflow efficiency and code quality and demonstrating deep understanding in software life cycle optimization.

PROJECTS**Refining Visual Question Answering with VGG16 and Attentional Deep Learning**

NY, US

Course Project

Jan 2024 - Apr 2024

- Enhanced VQA systems by integrating VGG16 with attention mechanisms, achieving 87.2% accuracy on the Easy-VQA dataset. Developed a dual-stream model combining custom CNN and VGG16 for image feature extraction, and LSTM for question processing.
- Employed data augmentation techniques for improved generalization. Merged visual and textual data streams for robust classification using a softmax function.
- Demonstrated superior performance over traditional CNN models in interpreting complex visual scenes.

Intelligent Search Optimization and Data Mining on GCP

NY, US

Course Project

Jan 2024 - Apr 2024

- Implemented a feedback system using Rocchio algorithm on GCP. Started with the query like 'per se' to find information on the Per Se restaurant in NYC. Used Google Search API to retrieve the top ten web pages, identified relevant pages, and extracted new keywords. Refined the query with these keywords achieving over 90% accuracy after one iteration.
- Collaborated with one teammate to integrate SpaCy and SpanBERT on GCP for a more intelligent search experience. Utilized Google Search API to input queries like 'Bill Gates Microsoft' and 'top employer', parsed web pages using SpaCy for entity recognition, employed SpanBERT for context understanding, and returned enriched results such as 'Elon Musk Tesla', reflecting deep experience with batch processing and real-time data streaming.

Collaborative Development of a Second-Hand Marketplace

NY, US

Course Project

Oct 2023 - Dec 2023

- Led a 4-person team in developing a second-hand marketplace platform from initial design through deployment, utilizing Ruby on Rails, React, and Kubernetes-managed microservices architecture.
- Automated infrastructure provisioning and configuration using Terraform (Infrastructure as Code - IaC).
- Managed task allocation across frontend, backend, and testing phases employing Behavior-Driven Development (BDD) and Test-Driven Development (TDD).
- Designed user-centric features to enhance platform usability:
 - Enabled user registration and login capabilities, including seamless integration with Google accounts.
 - Implemented Google Maps API for address validation in user profiles.
 - Developed a product creation feature with photos stored in S3, and title, price, and descriptions hosted on EC2.
 - Created a responsive web interface deployed on S3 for optimal viewing across various devices.
 - Added a product deactivation feature post-purchase and developed rating system with reviews visible on seller profiles.
- Championed the use of Cucumber and RSpec for testing, achieving 100% coverage, and leveraged CI/CD practices to automate code testing to ensure high code quality and seamless updates.