Chaoran Huang

184 Power St, Providence, RI, 02906

+1 9495221904 | chaoranhuang97@gmail.com | github.com/Chaoran-Huang | linkedin.com/in/chaoran-huang-8388b7203/

Education

Brown University
Providence, Rhode Island

MS, Computer Science
Sept 2022 - May 2024

- **Courses: Deep Learning, Computational Linguistics, Machine Learning, Adv. Algorithmic Game Theory, Cryptography & Computer Security, Multiprocesor Synchronization**

University of California, Irvine
Irvine, California

BS, Computer Science
Sept 2017 - June 2021

- Specialized in intelligent systems

Work Experience

Shuxiang Fayun (Shanghai) Technology Co., Ltd.
Shanghai, China

Full-Stack Developer, Co-founder
August 2023 - Present

- Spearheaded the development and integration of an issue management webapp and a QA-focused large language model (LLM) for legal professionals. Played a pivotal role in designing the system architecture and workflow, ensuring efficient and seamless operation.
- **Project: Integrated Issue Management Webapp and Language Model for Legal Practice**
  - Orchestrated the system design, defining the architecture and workflow logic to optimize communication and case management in legal practices.
  - Built the webapp using full-stack technologies, focusing on React, Next.js, and Tailwind for the frontend, and Spring Boot with DynamoDB for the backend.
  - Developed the LLM with PyTorch and Transformers to aid lawyers in legal case understanding and document preparation.
  - Integrated advanced third-party components like Tiptap for rich text editing and Spring Boot Retrofit2, Spring Security for enhanced functionality.
  -Seamlessly combined the issue management webapp and the LLM into a cohesive and efficient platform.
- **Achievements:**
  -The bespoke system design significantly streamlined communication and workflow within law firms.
  -The project was widely adopted by multiple law agencies and solo practitioners, generating considerable revenue.

My Car Auction, Inc
Irvine, California

Software Developer
March 2021 - July 2022

- Contributed to the development of an automated car inspection application and management system, including web app and software development and micro-service integration to enhance business operations.
- **Project 1: Competitor Price Scraping System**
  - Designed and developed a web scraping system using Selenium and Puppeteer/Pyppeteer to fetch competitor pricing data
  - Leveraged Axios/Express, AWS DynamoDB, and Vaadin framework for data processing and presentation
  - Automated the system with ngrok and researched anti-scraping techniques for efficiency
  - Successfully scaled the system to scrape over **300** competitors' auction vehicle prices daily across the entire U.S., providing comprehensive market insights.
- **Project 2: Oracle NetSuite Enterprise Resource Planning (ERP) and Customer Relationship Management (CRM) System**
  - Developed and integrated NetSuite CRM and ERP system software with iTextPDF, DocuSign, PandaDoc, and Auto-lead Data Format (ADF) using Java Spring Boot, OAuth2.0, and Retrofit2
  -Coordinated and customized company's Financial & Accounting team's requirements in collaboration with Oracle NetSuite consultants, greatly boosted working efficiency
- **Project 3: Named Entity Recognizer for Used Vehicles (NLP)**
  - Designed Natural Language Processing model to recognize important attributes from customers' descriptions and facilitate search engine algorithm to retrieve regulated vehicle information
  - Completed a workflow from inital data collection & cleaning, model training & deployment and software integration.
  Dived into different models: CNN, LSTM and transformers: BERT, analyzed their performance based on their strength and weakness.
  - Enabled offshore team to rapidly receive valuable and pertinent information, greatly improved the auto-lead number by **70%** per day.
- **Project 4: Sales Dashboard Web App**
  - Developed an interactive dashboard using Flask, Angular, and ECharts for visualizing sales data, enabling better marketing decisions and automating commission calculations for employee payroll
  - Integrated micro-services for offshore teams and the Finance Department to track sales processes and vehicle auction stages

Personal Projects

Ads Exchange Simulation Analyst
Providence, RI

Brown University
Jan 2023 - May 2023

- Excelled in a rigorous Ads Exchange Game project, securing a top-3 finish among competitors through auction strategy and advanced predictive analytics.
- Conducted an in-depth analysis of diverse auction models including First/Second Price Auction and the VCG Mechanism, applying these insights to significantly enhance bidding strategies for increased profitability.
- Implemented cutting-edge machine learning techniques by developing a Boltzmann Machine combined with Q-learning. Integrated these with a Viterbi algorithm-powered Hidden Markov Model to refine prediction accuracy and system efficiency in real-time bidding environments.

Data & Web App Development
Irvine, CA

University of California, Irvine
March 2020 - June 2020

- Developed a movie search website using Java and JavaScript, managing the backend database with MySQL, and deploying the project via Amazon AWS for an average load time under **300ms**.
- Enhanced website functionality by implementing full-text search, auto-complete, stored procedures, and various performance-tuning techniques.
- Strengthened website security with ReCAPTCHA and encrypted passwords, while expanding versatility by creating an accompanying Android mobile app with Google firebase.

Web Crawler & Search Engine
Irvine, CA

University of California, Irvine
March 2020 - June 2020

- Developed a Python-based web crawler to navigate all web pages under ics.uci.edu, utilizing packages such as Requests, Re, and BeautifulSoup.
- Created a web-based UI search engine via techniques: like TF-IDF, for querying user-entered text in local databases, leveraging cosine similarity to measure the relationship between input text and crawled web pages.
- Achieved a response time of **100ms** for search queries, enabling fast and efficient user interactions.
- Presented a comprehensive report detailing the accurate number of pages within the specified domain and successfully avoiding crawler traps.

Skills

Programming Python (Pandas, PyTorch, NumPy, Scikit-learn. etc.), Java, HTML/CSS, JavaScript, SQL.
Miscellaneous AWS micro-services, Jenkins, Docker, Kubernetes, Git.