Chaoran Huang

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PROFESSIONAL SUMMARY

Experienced Full Stack Developer who successfully advanced entrepreneurial venture. Skilled in multiple programming languages and frameworks. Obtained a rich research experience in Deep Learning, Cryptography, Auction Theory, Game Theory and System Design.

TECHNICAL SKILLS

Languages : JAVA, Python, C/C++, SQL (MySQL), JavaScript, TypeScript, Assembly
Frameworks :Spring Boot, Flask, Django, Pytorch, Tensorflow, SpaCy, Crypto++, jQuery, React, Angular, Node.js, ExpressJS, Bootstrap
DevOps and API Tools : Git, Docker, Kubernetes, Jekins, Postman
Cloud and Security Tools : *Amazon Web Services (AWS)* , *Google Cloud Platform (GCP)* , SQL Server, Linux (Configuring and Managing)

EDUCATION

Brown University	**MS, Computer Science** | GPA: 3.8	*Sept 2022 - May 2024*
University of California, Irvine	**BS, Computer Science** | Major GPA: 3.9	*Sept 2017 - June 2021*

EXPERIENCE

Full-Stack Developer, Co-founder | *Shuxiang Fayun Technology Co., Ltd., Shanghai, China*   *August 2023 –Present*
  – Spearheading the development and integration of an all-in-one business 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 AWS DynamoDB, ElasticBeanstalk, EC2** 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.
  – **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. **(> 1 million)**

Software Developer | *My Car Auction, Inc, Irvine, CA*   *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 **3000** 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** with **SpaCy** 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

ACADEMIC PROJECTS

Ads Exchange Simulation Analyst | *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 | *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 in pressure text**.
  – 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 | *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.