

# 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, Jenkins, Postman  
**Cloud and Security Tools** : *Amazon Web Services (AWS)* , *Google Cloud Platform (GCP)* , SQL Server, Linux (Configuring and Managing)

## EDUCATION

<b>Brown University</b>	MS in Computer Science, GPA: 3.8	Sept 2022 - May 2024
<b>University of California, Irvine</b>	BS in Computer Science, Major GPA: 3.9	Sept 2017 - June 2021

## EXPERIENCE

<b>Full-Stack Developer, Co-founder</b>   <i>Shuxiang Fayun Technology Co., Ltd., Shanghai, China</i>	<i>August 2023 –Present</i>
<ul style="list-style-type: none"><li>Spearheading the development and integration of an all-in-one business management webapp and a QA-focused <b>large language model (LLM)</b> for legal professionals. Played a pivotal role in designing the system architecture and workflow, ensuring efficient and seamless operation.</li><li><b>Project: Integrated Issue Management Webapp and Language Model for Legal Practice</b></li><li>Orchestrated the system design, defining the architecture and workflow logic to optimize communication and case management in legal practices.</li><li>Built the webapp using full-stack technologies, focusing on <b>React, Next.js, and Tailwind</b> for the frontend, and <b>Spring Boot with AWS DynamoDB, ElasticBeanstalk, EC2</b> for the backend.</li><li>Developed the LLM with PyTorch and Transformers to aid lawyers in legal case understanding and document preparation.</li><li>Integrated advanced third-party components like Tiptap for rich text editing and <b>Spring Boot Retrofit2, Spring Security</b> for enhanced functionality.</li><li><b>Achievements:</b><ul style="list-style-type: none"><li>The bespoke system design significantly streamlined communication and workflow within law firms.</li><li>The project was widely adopted by multiple law agencies and solo practitioners, generating considerable revenue. (<b>&gt; 1 million</b>)</li></ul></li></ul>	
<b>Software Developer</b>   <i>My Car Auction, Inc, Irvine, CA</i>	<i>March 2021 - July 2022</i>
<ul style="list-style-type: none"><li>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.</li><li><b>Project 1: Competitor Price Scraping System</b><ul style="list-style-type: none"><li>Designed and developed a web scraping system using <b>Selenium and Puppeteer/Pyppeteer</b> to fetch competitor pricing data</li><li>Leveraged <b>Axios/Express, AWS DynamoDB, and Vaadin framework</b> for data processing and presentation</li><li>Automated the system with ngrok and researched anti-scraping techniques for efficiency</li><li>Successfully scaled the system to scrape over <b>3000</b> competitors' auction vehicle prices daily across the entire U.S., providing comprehensive market insights.</li></ul></li><li><b>Project 2: Oracle NetSuite Enterprise Resource Planning (ERP) and Customer Relationship Management (CRM) System</b><ul style="list-style-type: none"><li>Developed and integrated NetSuite CRM and ERP system software with iTextPDF, DocuSign, PandaDoc, and Auto-lead Data Format (ADF) using <b>Java Spring Boot, OAuth2.0, and Retrofit2</b></li><li>Coordinated and customized company's Financial &amp; Accounting team's requirements in collaboration with Oracle NetSuite consultants, greatly boosted working efficiency</li></ul></li><li><b>Project 3: Named Entity Recognizer for Used Vehicles (NLP)</b><ul style="list-style-type: none"><li>Designed <b>Natural Language Processing model</b> with <b>SpaCy</b> to recognize important attributes from customers' descriptions and facilitate search engine algorithm to retrieve regulated vehicle information</li><li>Completed a workflow from initial data collection &amp; cleaning, model training &amp; deployment and software integration.</li><li>Dived into different models: <b>CNN, LSTM and transformers: BERT</b> , analyzed their performance based on their strength and weakness.</li><li>Enabled offshore team to rapidly receive valuable and pertinent information, greatly improved the auto-lead number by <b>70%</b> per day.</li></ul></li><li><b>Project 4: Sales Dashboard Web App</b><ul style="list-style-type: none"><li>Developed an interactive dashboard using <b>Flask, Angular, and ECharts</b> for visualizing sales data, enabling better marketing decisions and automating commission calculations for employee payroll</li><li>Integrated micro-services for offshore teams and the Finance Department to track sales processes and vehicle auction stages</li></ul></li></ul>	

## ACADEMIC PROJECTS

<b>Ads Exchange Simulation Analyst</b>   <i>Brown University</i>	<i>Jan 2023 - May 2023</i>
<ul style="list-style-type: none"><li>Excelled in a rigorous Ads Exchange Game project, securing a <b>top-3</b> finish among competitors through auction strategy and advanced predictive analytics.</li><li>Conducted an in-depth analysis of diverse auction models including <b>First/Second Price Auction</b> and the <b>VCG Mechanism</b> , applying these insights to significantly enhance bidding strategies for increased profitability.</li><li>Implemented cutting-edge machine learning techniques by developing a <b>Boltzmann Machine</b> combined with <b>Q-learning</b> . Integrated these with a <b>Viterbi algorithm-powered Hidden Markov Model</b> to refine prediction accuracy and system efficiency in real-time bidding environments.</li></ul>	
<b>Data &amp; Web App Development</b>   <i>University of California, Irvine</i>	<i>March 2020 - June 2020</i>
<ul style="list-style-type: none"><li>Developed a movie search website using <b>Java</b> and <b>JavaScript</b> , managing the backend database with <b>MySQL</b> , and deploying the project via <b>Amazon AWS</b> for an average load time under <b>300ms in pressure text</b>.</li><li>Enhanced website functionality by implementing full-text search, auto-complete, stored procedures, and various performance-tuning techniques.</li><li>Strengthened website security with ReCAPTCHA and encrypted passwords, while expanding versatility by creating an accompanying <b>Android</b> mobile app with <b>Google firebase</b> .</li></ul>	
<b>Web Crawler &amp; Search Engine</b>   <i>University of California, Irvine</i>	<i>March 2020 - June 2020</i>
<ul style="list-style-type: none"><li>Developed a <b>Python-based</b> web crawler to navigate all web pages under ics.uci.edu, utilizing packages such as <b>Requests, Re, and BeautifulSoup</b>.</li><li>Created a web-based UI search engine via techniques: like <b>TF-IDF</b> , for querying user-entered text in local databases, leveraging <b>cosine similarity</b> to measure the relationship between input text and crawled web pages.</li><li>Achieved a response time of <b>100ms</b> for search queries, enabling fast and efficient user interactions.</li><li>Presented a comprehensive report detailing the accurate number of pages within the specified domain and successfully avoiding crawler traps.</li></ul>	