




# Andy (Xiangyu) Cui

[GitHub](#) | [LinkedIn](#) | [Portfolio](#)

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EDUCATION	Relevant Coursework	Location & Date
<b>Northeastern University</b> <i>M.S. in Artificial Intelligence of Khoury College</i>		Boston, MA, USA Sept. 2021-Dec.2023
<b>University of Nebraska-Lincoln</b> <i>B.S. in Computer Science of Arts Science College</i>		Lincoln, NE, USA Sept. 2016-May. 2020
<b>Dalian Neusoft University of Information</b> <i>B.S. in Electronic Information Engineering</i>		Dalian, LN, CHN Sept. 2013-Sept. 2015

## SKILLS

- Programing languages: Java, Python, JavaScript, HTML, CSS, C/C++, Assembly, VB
- Database: MySQL, PostgreSQL, MongoDB, Redis, SQLite, Hive
- Machine Learning: TF-IDF, Naïve Bayes, GPT-2, Bert, CNN, Transformer
- Framework/Libraries: Spring Boot, React.js, Node.js, jQuery
- Version Control & CI/CD: GitHub, TFS, Azure DevOps, Jenkins, Jira
- Others: AWS, Docker, Maven, Tomcat, Axure, Servlet, Junit, Nginx, LaTeX, CAD design, Tableau

## WORK EXPERIENCE

<b>AlpaLifeBio Inc   Internship</b> <i>Software Engineer</i>	Woburn, MA, USA Dec. 2022- June 2023
<ul style="list-style-type: none"><li>● Executed data collection from biomedical public databases using <b>Python</b> and <b>graphical web scraping tools</b>, enhancing the dataset for advanced analysis. Additionally, processed and analyzed over 500,000 data entries daily, utilizing graphical data representations to streamline reporting and significantly boost workflow efficiency.</li><li>● Applied <b>TF-IDF</b> techniques for data comparison and matching, effectively identifying potential clients with a match rate of up to 95%, significantly contributing to targeted marketing strategies.</li><li>● Consolidated existing datasets for integrated analysis and established a structured <b>SQL</b> database, implementing tag processing for improved search and retrieval operations. This approach has saved 80% of the time for future data searches and significantly enhanced work efficiency, thereby saving costs for the company.</li></ul>	

## PROJECT EXPERIENCE

<b><u>Amazon QA robot trained by BERT &amp; GPT-2 (NLP)</u></b> <i>Team Leader &amp; Development Designer</i>	Boston, MA, USA Sept. 2023-Dev. 2023
<ul style="list-style-type: none"><li>● Developed a Question Answering (QA) system using <b>GPT-2</b> and <b>BERT</b> models focused on Amazon product reviews, assessing their performance in natural language processing tasks.</li><li>● Applied advanced <b>NLP</b> techniques, including <b>TF-IDF</b> Vectorization, <b>CBOW</b>, and <b>Skip-gram</b>, for effective data preprocessing and analysis.</li><li>● Conducted <b>K-Fold</b> Cross-Validation and ablation studies to optimize model performance and robustness, utilizing comprehensive model training and fine-tuning with a Kaggle dataset. We focused on accuracy, <b>LOSS</b>, and <b>BLEU</b> score metrics for evaluation, ultimately achieving high precision with an Accuracy F1 score of up to 94%.</li></ul>	

<b><u>Employment Website Design by Axure (HCI)</u></b> <i>Development Designer</i>	Boston, MA, USA Sept. 2023-Dev. 2023
<ul style="list-style-type: none"><li>● Orchestrated the design of an Employment Website tailored for co-op opportunities, meticulously realized through the principles of <b>Human-Computer Interaction (HCI)</b> and ensuring an intuitive user experience that aligns with non-technical user habits for widespread acceptance.</li><li>● Applied <b>CRAP design</b> principles to create a visually cohesive and navigable interface, addressing existing website pain points by incorporating critical features such as visa type and field of work.</li><li>● Championed a cohesive UI design philosophy across the platform, securing a seamless and inclusive user experience that appeals to a diverse audience. The design's efficacy and user satisfaction were substantiated through extensive usability testing, confirming that the interface meets high standards of effectiveness and user gratification.</li></ul>	

<b><u>Robot Shop Database (SQL)</u></b> <i>Team Leader &amp; Development Designer</i>	Boston, MA, USA Jan. 2023-May. 2023
<ul style="list-style-type: none"><li>● Developed a <b>Python</b> and <b>MySQL</b>-based Robot Store Management System to streamline operations for small supermarkets, featured in a terminal user interface.</li><li>● Implemented SQL database structures and <b>Python-MySQL</b> connections, enabling efficient user account, order, and refund management.</li><li>● Constructed and documented a secure, offline management system, accommodating customer and operator interactions with potential for web expansion using <b>Django</b>.</li><li>● Managed project version control with Anaconda and maintained code repository on <b>GitHub</b>, with comprehensive end-user documentation and test cases.</li></ul>	