Andy (Xiangyu) Cui

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EDUCATION — Relevant Coursework — Location & Date

Northeastern University — Boston, MA, USA
M.S. in Artificial Intelligence of Khoury College — Sept. 2021-Dec.2023

University of Nebraska-Lincoln — Lincoln, NE, USA
B.S. in Computer Science of Arts Science College — Sept. 2016-May. 2020

Dalian Neusoft University of Information — Dalian, LN, CHN
B.S. in Electronic Information Engineering — 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 EXPERENCE

AlpaLifeBio Inc | Internship — Woburn, MA, USA
Software Engineer — Dec. 2022- June 2023

- Executed data collection from biomedical public databases using **Python** and **graphical web scraping tools**, 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.
- Applied **TF-IDF** techniques for data comparison and matching, effectively identifying potential clients with a match rate of up to 95%, significantly contributing to targeted marketing strategies.
- Consolidated existing datasets for integrated analysis and established a structured **SQL** 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.

PROJECT EXPERIENCE

Amazon QA robot trained by BERT & GPT-2 (NLP) — Boston, MA, USA
Team Leader & Development Designer — Sept. 2023-Dev. 2023

- Developed a Question Answering (QA) system using **GPT-2** and **BERT** models focused on Amazon product reviews, assessing their performance in natural language processing tasks.
- Applied advanced **NLP** techniques, including **TF-IDF** Vectorization, **CBOW**, and **Skip-gram**, for effective data preprocessing and analysis.
- Conducted **K-Fold** 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, **LOSS**, and **BLEU** score metrics for evaluation, ultimately achieving high precision with an Accuracy F1 score of up to 94%.

Employment Website Design by Axure (HCI) — Boston, MA, USA
Development Designer — Sept. 2023-Dev. 2023

- Orchestrated the design of an Employment Website tailored for co-op opportunities, meticulously realized through the principles of **Human-Computer Interaction** (HCI) and ensuring an intuitive user experience that aligns with non-technical user habits for widespread acceptance.
- Applied **CRAP design** 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.
- 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.

Robot Shop Database (SQL) — Boston, MA, USA
Team Leader & Development Designer — Jan. 2023-May. 2023

- Developed a **Python** and **MySQL**-based Robot Store Management System to streamline operations for small supermarkets, featured in a terminal user interface.
- Implemented SQL database structures and **Python-MySQL** connections, enabling efficient user account, order, and refund management.
- Constructed and documented a secure, offline management system, accommodating customer and operator interactions with potential for web expansion using **Django**.
- Managed project version control with Anaconda and maintained code repository on **GitHub**, with comprehensive end-user documentation and test cases.