Andy (Xiang-Yu) Cui

GitHub | Linkedin | Portfolio

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Education

Northeastern University

M.S. in Artificial Intelligence of Khoury College

Boston, MA, USA

Sept. 2021-Dec.2023

University of Nebraska-Lincoln

B.S. in Computer Science of Arts Science College

Lincoln, NE, USA Sept. 2016-May. 2020

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

AlpaLifeBio Inc | Internship

Woburn, MA, USA

Software Engineer

Dec. 2022- June 2023

- Executed data collection from biomedical public databases through **Python** and graphical **web scraping** tools, enhancing the dataset for advanced analysis.
- Applied NLP techniques for data comparison and matching, effectively identifying potential clients and contributing to targeted marketing strategies.
- Processed and analyzed over **50,000** data entries daily, utilizing graphical data representations to streamline reporting and significantly boost workflow efficiency.
- Consolidated existing datasets for integrated analysis and established a structured SQL database, implementing tag processing for improved search and retrieval operations.

Dutchgo LLC | Self-employed/CEO

Omaha, NE, USA

Software Engineer Leader

Dec. 2022- June 2023

- Spearheaded the team in analyzing market conditions, conducted investigative analytics on Netflix user data to develop similar products, enhancing competitive market positioning.
- Employed web scraping technologies to aggregate and statistically analyze over 80 million data points across the web, employing graphical data flow techniques for targeted user demographic analysis.
- Led product development initiatives that generated \$3 million in revenue, employing daily data analysis to inform strategies and rapidly deploy solutions, significantly contributing to the company's operational efficiency.
- Implemented process controls to ensure precision in the deployment of all development stages and work segments, resulting in a marked efficiency improvement in a small company setting.

Projects

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.
- Performed comprehensive model training and fine-tuning with a Kaggle dataset, utilizing accuracy, LOSS and BLEU score metrics for evaluation.
- Conducted K-Fold Cross-Validation and ablation studies to optimize model performance and robustness.

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.