|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Troubleshoot data-quality issues, validate result sets, recommend, and implement process and performance improvements for data.**  **Analyze, synthesize, and communicate complex data-related issues clearly and succinctly to both internal colleagues and external clients.**  **Provide technical expertise and support to clients to understand 3Si data development, analyses, strategies, and plans.**  **Collaborate with cross-functional teams, including Engineering, Customer Success/Product and Sales/Marketing. Contribute to formal and informal presentations to 3Si clients.**  **Stay current with emerging technologies, industry trends, and best practices in data analytics.** | | **Andy (Xiangyu) Cui** | | **Analyze code (SQL and Python), identify inefficiencies, and design/develop/implement new and improved code from multiple source systems.**  **Develop high quality dashboards and visualizations in business intelligence tools (e.g. Tableau or PowerBI) that paint a story for clients.**  **Contribute to ongoing development and maintenance of multiple SQL databases and services (g. MS SQL Server, Snowflake, Redshift, MySQL)**  **Design, build, manage, model, and maintain flexible data models from various sources, and ensure that these data sets can be used to analyze equity-based decisions and program outcomes.** | |
| [xiangyucui@outlook.com](mailto:xiangyucui@outlook.com) | [GitHub](Github) | [LinkedIn](https://www.linkedin.com/in/andyfcui/) | [Portfolio](http://dreamslink.me/) | |
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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 | |
| **Dalian Neusoft University of Information**  *B.S. in Electronic Information Engineering* | | 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 EXPERENCE** | | | |
| **AlpaLifeBio Inc | Internship**  *Software Engineer* | | Woburn, MA, USA  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**](https://github.com/AndyFCui/Amazon_QA_Robot/tree/main) **(NLP)**  *Team Leader & Development Designer* | | Boston, MA, USA  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**](https://github.com/AndyFCui/HCI_Design_Job_website) **(HCI)**  *Development Designer* | | Boston, MA, USA  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**](https://github.com/AndyFCui/OnlineShop-Database) **(SQL)**  *Team Leader & Development Designer* | | Boston, MA, USA  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. | | | |