HAICHANG LI

+1 (765) 694-5954 | li4560@purdue.edu | https://haichang.li/

EDUCATION

Purdue University, *West Lafayette, US* *May. 2022 – Present*

- B.Sc. Computer and Information Technology and minor in Communication GPA: 3.97/4.0
- Non-degree experience for credits: University of Xi'an Jiaotong Liverpool/ Brigham Young/ San Diego State

PERVIOUS EXPERIENCES

Tanyu. Mobi *Apr.2023-Aug.2023*

Start-up member, Shine Resume *Shenzhen & Changsha, China*

- The Post-Covid era of frozen employment has coincided with AIGC and LLM's shine. In order to help sinking users get rid of the information gap in the market, designed "flash resume" from 0 to 1 and explored the related industrial chain as PM & MLE in start-up team, and finally obtained 10M+CNY of financial support.
- Finetuned and invoked GPT to achieve multiple textual tasks' requirements without output sensitive words and integrated fine-tuned Stable Diffusion to personalize generation of user photos by changing face.
- Faced with the cold start problem of lack of data set, BERT+BiLSTM+CRF named entity recognition model was deployed to analyze resumes and job descriptions to obtain keywords, and 93% F1 value was obtained.
- In the process of fuzzy search without overlapping, accomplished word embedding for matching the search phrase with the database based on the word meaning, and achieved by calculating the similarity.

SERIS Lab *Feb.2023- Present*

Research SubTeam Manager, Mus2Vid *West Lafayette, US*

- To aid hearing-impaired people in "Seeing" music by Synesthesia, unified external multimodal inputs based on the emotion computing and then visualized music in "AI prompts AI" method with the AIGC and LLM.
- Leveraged MusicBERT / BasicPitch to convert classical music into MIDI format while extracting key features such as pitch and frequency. Designed a Valence/Arousal 2D selector for emotion analysis and combined it with prediction for music genres to facilitate the conversion of music into textual modalities.
- Utilized classical music data to process the obtained emotion regression data, establishing a connection between music and text. Integrated GPT-Davinci to incorporate stylistic and visual elements, ultimately employing Stable Diffusion and Real-ESRGAN for text-to-image transformation.
- Adopted a user-centric approach, conducting user research with diverse musical and aesthetic backgrounds. Employed both quantitative and qualitative research methods to collect data and formed vectors and validated the modality transformation through techniques such as t-SNE, PCA, and multivariate regression.

Thermal Fluid Lab *Feb.2022- Jun.2022*

Research Assistant, Human Thermal Comfort *Suzhou, China*

- In order to help the process of designing interior environment architecture, focused on exploring thermal comfort performance of human body during movement based on PMV model, so as to study the interaction between human and external environment and provide suggestions for architectural design industry.
- Designed a variety of user-centered research methods, including questionnaire survey, interview and physical measurement, to obtain the data and feedback of users' perception of external thermal comfort under exercise conditions, and completed the quantification and processing of various dimensional data.
- Developed a data-driven thermal comfort prediction model based, integrating subjective human perceptions with external environmental and finally achieved an accuracy rate of 84% to meet industry requirements.

ACTIVITIES

Associate Co-Chair, *IEEE Student Branch* *Apr.2021 - May.2022*

Minister of Creative publicity Department, *Science Innovation Association* *Oct.2021 - May.2022*

Media & Public Relationship department, *Chinese Students and Scholars Association* *Oct.2022 - May.2023*

SKILLS

Programming: Python, C, SQL, JAVA Communicating Language: Mandarin (Native), English (Fluent)

Used Tools and Frameworks: PyTorch, Scikit-learn, Genism, OpenCV, Arduino, Pandas, Numpy AND PM-related