Yuqing Jian

Portfolio | LinkedIn | GitHub

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Education

- **University of Illinois Urbana-Champaign** — Champaign, IL
  B.S. in Mathematics and Computer Science GPA: 4.0(4.0) — *Sep 2021 - Dec 2024*

Skills

- **Languages**: C/C++, Python 3/2, Java, JavaScript, SQL, HTML, CSS
- **Tools**: Linux, Selenium, PyTorch, LangChain, Scikit-Learn, MATLAB, Git, Docker, React, VueJS, NodeJS, Django

Experience

- **Qiyin Tech** | *Co-founder and Software Engineer* — *Beijing | Nov 2021 - Jun 2023*
  - **Algorithm Development**: Developed a novel music evaluation and generation system using neural networks based on **Transformer** in **C++** and **Python**, utilizing music theory to promote music exchange and transmission.
  - **Web3 and Metaverse Integration**: Established webpage by **reactjs**, leveraged **ONNX** for model exportation, leading to a more lightweight deployment on a **Linux** remote server. Implemented **Nginx** for high-performance HTTP server capabilities and **Redis-py** for client interfacing, contributing to an improved server response time by 20%.
  - **Fundraising & Recognition**: Raised $300,000 in investments for the **web3** and **meta-universe** integrated music platform Qiyin Music. As co-first author published paper in IEEE ICME '22 (Top 4 Conference in Computer Music).
- **Tsinghua University NLP Lab** | *Research Assistant* — *Beijing | Mar 2022 - Jan 2023*
  - **Data Cleaning & Processing**: Developed an effective data cleaning solution with **Gensim** and **FastNLP**,used **Scrapy** and **selenium** for web scraping, leading to a richer and cleaner dataset for model training.
  - **Model Building**: Continue **SongNet**'s work, Created **NLP** models with **Huggingface** and **KeyBert**, introducing the ability to generate lyrics based on specific keywords, length, and other elements.
  - **Impact**: The improvements to data quality and model capabilities led to a 15% increase in the accuracy of lyrics generation, showed excellent results on multiple data sets, providing a more engaging user experience.
- **SenseTime** | *Software Engineer Intern* — *Beijing | Jun 2021 - Dec 2021*
  - **Algorithm Improvement**: Enhanced the performance of existing **Computer Vision** models by researching and implementing new algorithms, leading to a significant 25% improvement in model efficiency.
  - **AI Education**: Led interactive courses on trending topics such as **Face Recognition** and **Autonomous Driving,** which increased student engagement by 30%. Courses have been approved by Shanghai Education Commission.
  - **Software Packaging**: Simplified and integrated models into user-friendly packages for AI-education products, improving load times and usability in the educational setting. Related SDK receives 100k+ usage.

Projects

- **ResumeBot** | *Chat with my resume* — *Apr 2023 - Jul 2023*
  - Used **LangChain** with **OpenAI API** to enable prompt management, optimization, and the creation of a generic interface for all language models, amplifying the functionalities of ResumeBot.
  - Leveraged **Gradio** and **CSS** to construct an interactive interface, deployed on **Hugging Face Spaces**.
- **Tong Music** | *The first application of GPT in lyrics generation project in China.* — *Dec 2020 - Jun 2023*
  - A music platform was developed using **Django** and **html**, which allows users to create music online by using artificial intelligence technology. The generated songs can be shared and traded through the platform.
  - Used **Python** and **MySQL** to build a database and execute database query and modify operations automatically.
  - Used improved **GPT-2** model to train lyrics data, users can choose theme, main content and rhyming style for the machine to compose and sing on its own. All the functions can be experienced on the website in one click.
- **Anti GPT Detector** | *A legitimate site for anti GPT detection* — *Dec 2022 - Mar 2023*
  - Used **huggingface** to develope an encryption algorithm used to counter GPT Inspector, which can humanize the text generated by GPT. Trained a **RoBERTa** model to detect AI-generated text.
  - Used **Vuejs** to build the front end, applied **FastAPI** for connecting the humanize algorithm.