Ziwei Wang

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🎓 Education

Washington University in St. Louis | M.S. in Computer Science   **Aug 2021 - Dec 2023, St. Louis**

GPA: 3.54/4
Main Courses: Machine Learning(93), Data Mining(100), Intro to Artificial Intelligence(93), Natural Language Processing, Nonlinear Optimization, Introduction to Machine Learning, Probability(95), Matrix Algebra(100), Computational Models of Music Theory and Cognition, Analysis of Network Data
Teaching Assistant: Data Mining, Analysis of Network Data

Communication University of China | B.A. in Computer Music   **Sep 2013 - Jun 2017, Beijing**

GPA: 3.56/4
Rank: 2/21;
Ranked 1st in China in the Entrance Examination (2013), Received Outstanding Graduate Award (2017), and more than 8 awards and scholarships

📖 Experiences

Master Project: Designing a Course Unit on Large Language Models (LLMs)   Aug 2023 - Dec 2023, St. Louis

Advisor: Prof. Marion Neumann (Washington University in St. Louis)

- Developed course content about the large-scale language model for a senior undergraduate computer science course
- Designed three lectures length of LLMs theory and then completed notes and slides after researching large amounts of deep learning and natural language processing materials
- Trained the fine-tuning model with the medical field translation dataset on LLaMA-7b by Pytouch on Google Cloud, and designed the hands-on project code assignment for students to compare the inference results based on LLaMA-7b and GPT1, and compare the results with and without the fine-tuning process

Huge Head Co. | Co-Founder   Mar 2020 - Aug 2021, Hongkong

- Participated in the research and development of an automatic song accompaniment system with Ph.D. student Dejie Guo supervised by Professor Xihong Wu at Peking University
- Produced the dataset of music materials and accompaniment templates used by the accompaniment generation module.
- Designed the overall workflow in the accompaniment generation module, including parts counterpoint method, loop development method, form structure method
- Read papers and conduct model generation experiments to evaluate the quality of music and the applicability of the models
- Developed the render module with Python with Music21 library
- Designed the interactive interface, launched the alpha version and achieved the feedback of hundreds of users.
- Registered a company, presented the business plan to VCs

China Central Television | Assistant Engineer   Jun 2017 - Jun 2020, Beijing

- Contributed to design, renovation, operation and maintenance of studio section of broadcast transmission system for signals sources interfacing with transmission and distribution departments
- Acted as an executive leader of the technical support team for the off-site broadcast of several international events including Boao Forum for Asia (2019), SCO Summit(2018), BRICS Summit (2017)
- Honored by National Publicity Department (2019); Awarded certification of Engineer from Adminis- tration of Radio, Film and Television, China (2019); Employee of the Year (2018).

Trio Music | Founder, Director   Jun 2017 - Jun 2020, Beijing

- Submitted bids and delivered music solutions for over 30 projects
- Served as musical director providing audio and sound design, composition, production and engineering for theatre musicals, advertisements, documentaries, TV series, and movies for JD, Baidu, China Central Television, Golden Eagle Broadcasting, China Telecom, BYD, KEEP, etc.

NetEase Game |Audio Intern   Jun 2016 - Oct 2016, Hangzhou

- Participated in designing, production, and packaging soundtrack and sound effects by game audio engine development tool Wwise for MMORPG game *Justice* .

★ Awards & Scholarships

Order of Commendation (National Publicity Department)	2020
Employee of the Year (China Central Television)	2018
First Prize (16th Beijing International Electronic Music Composition Competition)	2015
First Prize (8th China University Computer Design Competition - Computer Music)	2015
Second Prize (8th Beijing Sound Design Competition)	2016
Outstanding Graduate Award (Communications University of China)	2017
Special Talent Award (Communications University of China)	2017
Merit Honor (Communications University of China)	2016
Scholarship for Academia and Competitions (Communications University of China)	2016
Excellent Student Leader Award (Communications University of China)	2015

☆ Skills, Certificates and Memberships

Programming: Java, Python(Pytorch), Matlab

Music: Composition(Academic music, film and television soundtracks, musical, studio songwriting, production and recording), performance (Piano, Cello, Guitar, Jazz Drum, Guzheng)

Assistant Engineer Certificate (Administration of Radio, Film and Television, China)

National Recording Artist Certificate (China) - Intermediate

Member of the Chinese Musicians Association

Member of the Society for Music Perception and Cognition

Member of the International Society for Music Information Retrieval