

# EIRWYN (YIGUO) ZHANG

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## Summary

Experienced Technical Director and AI Engineer with a robust track record in spearheading AI/ML innovations and deploying machine learning models in high-stakes production environments. With a specialty in crafting complex data pipelines, model fine-tuning, and performance optimization, I possess a blend of technical understanding and business insight. I excel at rallying cross-functional teams to harness the power of data-driven solutions and drive significant business impact. My background in high-performance computing and scientific and graphic programming, complemented by ongoing development in AI/ML and project management, equips me with a unique perspective and versatile skill set in the tech landscape.

## WORK EXPERIENCE

**Southern New Hampshire University (SNHU) | Manchester, NH**

**Program Director - AI Summit, Feb 2024 - Present**

- Spearheaded the development of the AI Summit agenda, designed an inclusive proposal application process, and established various tracks and levels to cater to a diverse audience.
- Played a pivotal role in coordinating with track leads and speakers, ensuring smooth execution of all tracks and effective collaborations.
- Guaranteed the delivery of high-quality and relevant presentations, enhancing the value provided to the attendees.
- Successfully secured commitments from high-profile keynote speakers and session leaders, elevating the stature of the summit.

**Chengdu Science & Art Culture Development Co., Ltd | Chengdu, Sichuan, PRC**

**Technical Director | AI Architect, January 2023 – Present**

- Transitioned from a Software Solution Architect (2019) to an AI Architect, integrating AI elements into existing pipelines.
- Rolled out fine-tuned in-house AI models, enhancing the company's technical capabilities and service offerings.
- Supervised the implementation of AI technologies in various existing projects, ensuring seamless integration and optimal performance.
- Stayed abreast of advancements in AI and hardware, leveraging new technologies to improve efficiency and effectiveness.
- Communicated complex technical concepts to non-technical stakeholders, facilitating understanding and informed decision-making.
- Evaluated the impact of AI integration on business operations, identifying improvements in efficiency and cost-effectiveness.
- Maintained leadership responsibilities, oversee technical teams and managing project timelines and deliverables.
- Relocated from China to the US for academic pursuit, demonstrating adaptability and a commitment to continuous learning and development.

**Chengdu Lanma Sight Decoration Art Engineering Co., Ltd | Chengdu, Sichuan, PRC**

**Technical Project Manager | Software Solution Architect, August 2019 – August 2023**

- Leveraged previous experience in HPC and high-performance graphics to contribute to the company's technical projects.
- Directed and executed the transition from in-person to remote workspace during COVID-19 with minimal disruption.
- Managed project updates and tracked progress towards completion using MS Project and Bitbucket.
- Handled risk and change management throughout the project cycle.
- Oversee for all upgrades to the company's hardware infrastructure.
- Led the negotiation with ISP to support remote operations during a pandemic to minimize downtime while optimizing costs.
- Successfully delivered milestones and projects to clients, contributing to the company's survival during the COVID-19 situation in China.
- Worked towards a college degree while working full-time demonstrating strong time management and multitasking skills.
- Earned a Professional AI Engineering certificate audited by IBM, further enhancing technical expertise.

**Freelancing | Chengdu, Sichuan, PRC**

**Technical Director (Entertainment/Film/VFX) | Simulation Specialist (Science & Engineering), January 2015 – July 2019**

- Leveraged my strong foundation in mathematics, physics, and computer programming to jump start a freelancing career.
- Specializing in creating particle, CFD, and rigid body physics simulations for clients in the Entertainment/Film/VFX industry.
- Designed and engineered simulations of various physical/natural processes to meet client requirements.
- Expertly utilized C++ and OpenCL for numerical simulation, OpenCL or OpenGL in physically based rendering.
- Managed project schedules and negotiated contracts as part of self-employment obligations.
- Created custom production pipeline utilizing Autodesk 3DSMax, SideFx Houdini, and Isotropix Clarisse for the production teams.
- Extensively used Python for interaction and automation within the pipeline.

## **CORE COMPETENCIES**

- Demonstrated mastery of the Machine Learning Development Lifecycle, including hands-on experience with advanced techniques such as Transformers and Generative Adversarial Networks (GANs).
- In-depth expertise in the architecture and refinement of Data Pipelines, ensuring seamless and efficient AI/ML application performance.
- Adept in Model Monitoring, Performance Tuning, and Troubleshooting, ensuring high reliability and accuracy of deployed models.
- Proficient in Speech Recognition, Natural Language Processing (NLP), and Reinforcement Learning, with a track record of delivering innovative solutions.
- Skilled in leveraging a suite of machine learning and deep learning frameworks, including NumPy, scikit-learn, Keras, PyTorch, and TensorFlow, to drive analysis and model development.
- Strong collaborator with a history of effective Cross-Functional Team Leadership and Project Management, ensuring cohesive efforts and timely delivery of complex projects.

## **EDUCATION**

- STEM MBA, Southern New Hampshire University | Manchester, NH
- Bachelor of Science in Game Programming and Development, Southern New Hampshire University | Manchester, NH