Jingyu WANG MSc Data Science @ ETH | ML Engineer @ Josepha, Zurich

Looking for: **ML&AI Engineer/SWE/Data Scientist/Graduate Program**

Nationality: China Permit: B (Berechtigt zur Erwerbstätigkeit)

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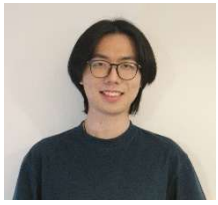

EDUCATION

Spet.2021 – Present: **MSc Data Science** ETH Zurich, Switzerland

Overall GPA 5.5/6. Related Courses: Advanced Machine Learning, Big Data, Optimization in Data Science, Machine Perception, Fundamentals of Mathematical Statistics, Computer Vision.

Sept.2019 – Jun.2021: **BSc Physics (Joint)** Université Claude Bernard Lyon 1, France

Overall average 18.1/20.0, rank 1/100. Distinguished Graduate.

Sept.2017 – Jun.2019 **BSc Physics (Joint)** Wuhan University, China

Overall GPA 3.97/4.00, rank 1/197. National Scholarship, Distinguished Graduate.

LANGUAGES

English: C1, fluent **French:** C1, fluent **Chinese:** Native **German:** A2

SKILLS

Programming:	**Python**, **JavaScript**, C++, CUDA, Shell
Data Pipeline:	PostgreSQL, sqlalchemy, Apache Spark, ElasticSearch, MongoDB, Firestore
Dev Envs/Tools:	Linux, Bash, **Docker**, **Git**, GitHub Actions, **GCP**, AWS, Azure
Libs/Frameworks:	**PyTorch**, **LangChain**, Tensorflow, sklearn, pandas, PySpark, OpenCV, huggingface, SD
Interpersonal:	Scrum, Business understanding, Presentation, Documentation

CERTIFICATES

Azure AI Engineer Associate, IBM Data Science Professional.

WORK EXPERIENCES

Mar.2025 – Present: ***Full-stack Machine Learning Engineer*** at JOSEPHA, Zürich

Oct.2024 – Mar.2025: ***Machine Learning Engineer Intern*** at JOSEPHA, Zürich

Josepha is a pre-seed startup building an AI-powered shopping platform focused on price comparison and conversational shopping via chatbot. As a core full-stack machine learning engineer, I contributed across the stack:

- Built production-grade FastAPI backend, with robustness, low latency and high observability
- Built modern mobile App with React Native using Expo and CNG
- Deployed and manage services on GCP with GitHub Actions for CI/CD
- Designed and implemented automated ETL pipeline for large scale e-commerce feeds ingestion
- Finetuned a search engine based on ElasticSearch, with better performance than Algolia in our benchmark
- Worked on prompt engineering, LLM fine-tuning, and LLM safety evaluations
- Finetuned Qwen-3 4B for classification task. Deployed on GCP Kubernetes Engine with vLLM

Technologies : Python, JS, GCP, AWS, FastAPI, RestAPI, Langchain, MongoDB, Firebase, Docker, CI/CD, React Native, vLLM

Feb.2024 – Jun.2024: ***Research Scientist Intern*** at Ubisoft, Shanghai

Designed and implemented a GenAI-powered tool to assist artists in texture creation for games. The solution was trained locally, deployed to Azure, integrated into internal tools, and is currently used in production. Paper has been accepted to **SIGGRAPH Asia 2025**.

- Collaborated with stakeholders (artists, art directors) to align on product goals
- Developed a text-to-texture algorithm using diffusion models and image translation techniques
- Implemented in PyTorch and other performance-critical modules in C++/CUDA
- Achieved high-fidelity and consistent material map synthesis using text prompts
- Integrated the prototype into ComfyUI to gather feedback from internal users
- Deployed the model on Azure and integrated into the internal production pipeline
- Iterated with cross-functional teams (managers, artists, developers) to refine the final model

Technologies : PyTorch, CUDA, Stable Diffusion, Transformers, ComfyUI, Python, Git, Scrum, OpenGL, GLSL

PUBLICATIONS

RISE-SDF: a Relightable Information-Sharing Signed Distance Field for Glossy Object Inverse Rendering [Website]

Published at 3DV 2025

Achieved **state-of-the-art** results in **3D reconstruction**, **material estimation**, and **relighting** for glossy objects. Built upon recent advances in NeRF and SDF.

Technologies: PyTorch, PyTorch-Lightning, Python, CUDA, Linux, Slurm, 3D Reconstruction, Inverse Rendering

CHORD: Chain of Rendering Decomposition for PBR Material Estimation from Generated Texture Images [Website]

Published at SIGGRAPH Asia 2025

We propose a **generate-and-estimate** framework to produce high-quality SVBRDF channels for physically based rendering of materials, achieving **state-of-the-art** performance in material estimation.

Technologies : PyTorch, Stable Diffusion, Transformers, Texture Synthesis, Data Augmentation