Tianci Wang

GitHub
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LinkedIn

Education

•Shanghai University *2016-2020*
Mechanical Engineering Bachelor

•RWTH Aachen University *2020-2023*
Robotic Systems Master

Experience

•Shanghai University Workshop *2017.06-2017.09*
Student Assistant Shanghai
– Used Solidworks to make 3D models for the products
– Improved mechanical structure to facilitate production

•RWTH Institut für Allgemeine Mechanik (IAM) *2019.10-2020.03*
Research Assistant Aachen
– Studied the physical properties of 3D printed metallic glasses
– Used Avizo and micro-scanner to rebuilt the inside structure
– Used Abaqus to simulate the fracture and compared it with the real fracture

•Shanghai Solar Energy Research Center *2020.07-2020.08*
Production Management Shanghai
– Studied the properties of solar panel materials for spaceflight
– Helped to manage the production of solar boards
– Used CAD and Solidworks to create models for solar boards

•Machine Learning and Musculoskeletal Imaging (Uniklinik) *2022.05-2022.11*
Research Assistant Aachen
– Used deep learning to predict the survival dates of patients with brain tumors
– Used stable diffusion to train the chest x-rays and generate images with related diseases
– Used vision transformers to classify the knee diseases and locate them

Papers

•Medical Diagnosis with Large Scale Multimodal Transformers *2022.12*
Leveraged Diverse Data for More Accurate Diagnosis

•Diffusion Probabilistic Models beat GANs on Medical Images *2022.12*
Compared the performance of two models on medical image processing

•Medical transformer for multimodal survival prediction in intensive care *2023.07*
Recommended a robust combined model to do survival predictions

•A multimodal comparison of latent denoising diffusion probabilistic models *2023.07*
Introduced Medfusion, a conditional latent DDPM designed for medical image generation

•Medical Foundation Models are Susceptible to Targeted Misinformation Attacks *2023.09*
Demonstrated a concerning vulnerability of LLMs in medicine

•Multimodal Deep Learning for Integrating Chest Radiographs and Clinical Parameters *2023.10*
Developed a neural network architecture capable of integrating multimodal patient data

Technical Skills and Interests

Languages: English, Chinese
Soft Skills: Python, CAD, Solidworks, Abaqus, Matlab, Avizo
Areas of Interest: biking, piano, table tennis

Achievements

•Outstanding volunteers in Shanghai Teaching the disabled children *2017*

•Outstanding bachelor thesis Topic with the 3D printing metallic glasses *2020*

•Top grade master thesis Topic with using ViTs diagnosing diseases in knee *2023*