

NINGKUN ZHOU

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Estimated time arrival in UK: Late August 2024 on HPI visa

SUMMARY

Machine Learning Engineer with Five Years of Experience in Biomedical Imaging and Computer Vision. Highly skilled in translating cutting-edge algorithms from research to real-world applications. Expertise in integrating computer vision tasks into surveillance systems, specializing in fully automatic PTZ (pan-tilt-zoom) camera systems. Proficient in implementing advanced techniques such as zero-shot classification and NLP-assisted computer vision for industrial production. Proven ability to stay ahead of technological advancements and drive innovation in machine learning and computer vision. Authorized to work under High Potential Individual Visa.

WORK EXPERIENCE

Danieli China

Algorithm Engineer

2022-present

- Constructed an auto-adaptive PTZ camera image acquisition system using object-detection and cross-correlation
- Implemented popular architectures such as YOLO, Mask R-CNN, and ViT to production line
- Introduced CLIP-base image classification to reduce annotation workload
- Optimized automatic scrap classification system in terms of stability and precision for 5+ customers

Chinese Academy of Sciences, GIBH

Research Assistant

2019-2022

- Applied non-supervised reconstruction algorithm to solve protein atomic-level structure using cryogenic electron microscopy
- Utilized deep learning technology in data processing pipeline automation and data quality improvement
- Published two scientific papers on international reputable journals

EDUCATION

University of Wisconsin, Madison

2015-2019

- Bachelor of Science in Genetics and Genomics
- Certificate in Computer Science

SKILLS

- Tensorflow, Pytorch, Yolo, Detectron2
- Numpy, Pandas, Matplotlib
- Linux, Docker
- Integration of machine learning algorithm in PTZ camera
- Redis, SQL, Rabbitmq, RESTful API

PUBLICATIONS

- Structural basis of nucleosome deacetylation and DNA linker tightening by Rpd3S histone deacetylase complex. Cell Research, 2023.
- Vibrio parahaemolyticus prey targeting requires autoproteolysis-triggered dimerization of the type VI secretion system effector RhsP. Cell Reports, 2022.