KE ZHANG

Xi’an, China
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- Hands-on experience with saliency detection, object detection/segmentation, and image anomaly detection.
- Expert in algorithm design, creative problem solving, and performance optimization.
- Knowledgeable with computer vision, linear algebra, and statistics
- High proficiency in tools such as Matlab, OpenCV, Caffe, Pytorch, and TensorFlow
- MS and PHD in Computer Science with a focus on eye gaze tracking and saliency prediction, 3 research papers published.
- Bachelor’s in mathematics

WORK EXPERIENCE

Senior Computer Vision Engineer

6/2020 to 11/2023

Xi’an Huoyan Intelligent Inspection Research Institute
Xi’an, China

- Researched, developed and implemented creative computer vision algorithms with MATLAB, C++, python including:
  - component detection in tunnel(YOLOV5-V8)
  - anomaly object detection on railway surface(POOLNET, SOLO)
  - leakage/spalling detection and segmentation(YOLOV5-V8)
  - crack segmentation(deeplabV3+, unet++, sa-unet, transunet).
- Invented an anti-counterfeiting label based on QR code and embedded anti-counterfeiting curves Utility Patent authorized by CNIPA , designed and developed the counterfeiting detection algorithm with cellphone cameras.

SKILLS

computer vision/image processing - 10+ years

AI - 7 years

python - 7 years

pytorch - 7 years

caffe - 3 years

tensorflow - 3 years

matlab - 5 years

c++ - 5 years

EDUCATION

Northwestern Polytechnic University

Doctorate
video based eye tracker; visual attention and saliency model
Xi'an, China
9/2010 to 12/2019

Northwestern Polytechnic University

Master's
video based eye tracker
Xi'an, China
9/2008 to 7/2010

Northwestern Polytechnic University

Bachelor's
Information and computing science (Mathematics)
Xi'an, China
09/2003 to 07/2007

CERTIFICATIONS / LICENSES

Intel Edge AI Certification

3/2021

Certification training includes:

- Hands-on experience with edge AI tools and platforms, including the Intelfi Distribution of OpenVINO" toolkit and Intelfi Developer Cloud for the Edge.
- Use cases that detect safety gear, prevent retail losses, identify manufacturing defects, and solve other real-world problems with the combined application of computer vision deep-learning inference.

- Development of your own edge AI solutions portfolio, drawing on libraries and APIs for TensorFlow*, PyTorch*, Open Neural Network Exchange (ONNX*), and other public models, running on your choice of Intel Developer Cloud for the Edge hardware clusters.

Kaggle AI certificate Computer Vision

11/2022

Kaggle AI certificate CV

NVIDIA DLI Certificate

11/2022

successful completion of

- Getting Started with AI on Jetson Nano
- Building Video AI Applications at the Edge on Jetson Nano