Zhuqi XIAO

Future Machine Learning Engineer

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Results-driven Data Science student from Chalmers University of Technology with over two years of experience in data-driven computer vision projects. Passionate about applying AI technology to practical aspects. Excellent problem-solving skills and ability to be open-minded perform well in a team—experience working in large-scale codebase projects and good documentation writing skills.

✎ EXPERIENCE

Jun, 2022
Jan, 2022

Thesis Project, ZENSEACT, Sweden
> Focus on looking for approaches for automatically generating high-quality 3D lane annotations, enabling training 3D lane detection modules in a federated scheme
> Applied different labelling methods, such as utilizing high-definition maps and labelling with the accumulated monocular depth information, thereby generating an ensemble/plurality of annotation candidates for voting
> Explore self-supervised learning at the edge to utilize the massively available unlabeled data at the edge (streams of data or videos) to improve the performance of the models at the edge

`3D lane detection`   `Federated/Edge learning`   `Self-supervised learning`

Oct, 2021
Sep, 2021

Project, UNIVERSEUM, Sweden
Details about this project could be found here
> A pre-study of building an animal identification model using deep learning methods, with the long-term goal to develop an application that visitors can identify animals by taking photos
> Collect and annotate animal images within Universeum for building a dataset
> Implement and evaluate different state-of-art DL methods of object detection, such as YOLO and Faster-RCNN

`Object Detection`   `Dataset annotation`   `PyTorch`   `YOLO`   `Faster-RCNN`

Jun 2020
Dec 2019

Thesis Project, CHONGQING UNIVERSITY OF TECHNOLOGY, China
Details about this project could be found here (in Chinese)
> Implemented a real-time multi-purpose detection model for detecting tourists' faces, key points on faces, and their facial expressions based on a multi-task convolutional neural network (MTCNN)
> The model could be potentially helpful for the tourist centre easily obtain the tourists' satisfaction level and quickly take measures for improvement

`Face Detection`   `Emotion Detection`   `MTCNN`   `Caffe`

Aug 2019
Jun 2019

Summer Student, CHINESE ACADEMY OF SCIENCES, China
> Participated into a demo project to achieve a Face Recognition system based on CNN using Tensorflow
> Provided innovative developing method for the team, which was recognized in the research by the supervisor

`Face Recognition`   `Tensorflow`

Jun 2019
May 2019

Internship, BEIJING HUAQING YUANJIAN TECHNOLOGY DEVELOPMENT CO., LTD, China
> Developed a prototype of a wireless controlled intelligent car based on STM32 chips from scratch, including PCB design, programming, and functional testing
> As the project leader, I was mainly responsible for coordinating the collaboration of the team members and controlling the progress of the project

`Embedded computing systems`   `C++`   `STM32`   `Linux`   `PCB Design`

Jun 2019	Teaching Assistant, CHONGQING UNIVERSITY OF TECHNOLOGY, China
Feb 2019	> Selected as a teaching assistant for the course, Data Structures and Algorithms, after completion due to excellent performance
	> Assisted the professor in teaching affairs such as assignment reviewing, holding office hours, and grading exam papers
	> Maintain the course web page, including both front and back end

C++   Data Structures   Algorithms

☰ SKILLS

Languages	Chinese (native), English (fluent), Swedish (learning)
Programming Languages	Python, C/C++, SQL, MATLAB, Shell, Cypher
Tools	Linux, Git, PyTorch, Tensorflow, Scikit-learn, Docker, OpenCV, NumPy, Pandas, Matplotlib, Excel
Others	Machine (Deep) Learning, Data Visualisation, Data Analysis, LaTeX, Video Editing

🎓 EDUCATION

Aug, 2022	Master	Data Science and AI, CHALMERS, Sweden
Aug, 2020	Main courses :

Design of AI systems   Applied Machine Learning   Computer Vision   Database

Deep Machine Learning   High-Performance Computing   Advanced Programming

Jan, 2019	International Exchange	Electrical Engineering, KOREA ADVANCED INSTITUTE OF SCIENCE AND TECHNOLOGY, Korea
Aug, 2018	Main courses :

Embedded Computer Systems   Electronic Circuits   Random Processes

Jun, 2020	Bachelor	Electronic Information Engineering, CHONGQING UNIVERSITY OF TECHNOLOGY, China
Sep, 2016	Main courses :

Advanced Engineering Mathematics   Linear Algebra   Data Structures and Algorithms

Programming Structure   Probabilistic Theory and Statistics