



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 <ul style="list-style-type: none">> Focus on looking for approaches for automatically generating high-quality 3D lane annotations, enabling training semi-supervised 3D lane detection modules in a federated scheme> Explore multiple ways to generate 3D lane annotations, such as utilising HD maps and combining depth maps from aggregated LiDAR point clouds, thereby generating an ensemble/plurality of pseudo annotation candidates for voting> Explore self-supervised learning at the edge devices to utilise the massively available unlabeled data at the edge (streams of data or videos) so as to improve the performance of the models at the edge 3D lane detection Federated/Edge learning Semi-/Self-supervised learning
Oct, 2021 Sep, 2021	Project, UNIVERSEUM, Sweden <p>Details about this project could be found here </p> <ul style="list-style-type: none">> 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 <p>Details about this project could be found here  (in Chinese)</p> <ul style="list-style-type: none">> 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 <ul style="list-style-type: none">> 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 <ul style="list-style-type: none">> 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	<ul style="list-style-type: none"> > 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 (professional working proficiency), 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