

Tianlei Shi

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EDUCATION

School of Advanced Technology, Xi'an Jiaotong-Liverpool University Sep 2018 - Present
B.Sc. in Information and Computer Science

Department of Computer Science, University of Liverpool Sep 2018 - Present
B.Sc. in Computer Science

RESEARCH EXPERIENCES

Semantic Segmentation and Area Estimation for red tide | XJTLU | Research Assistant Jan 2021 - Jun 2021
Advisor: Xiaohui Zhu, lecturer at the School of Advanced Technology, XJTLU

- Researched object detection and semantic segmentation algorithms for the detection and segmentation of red tide
- Researched the method to estimate the area of regular and irregularly shaped objects in water in the binocular stereo vision system
- Researched the method of removing the water surface reflection in images

Object detection applied in UVA and USV | XJTLU | Research Assistant Sep 2020 - Jan 2021
Advisor: Xiaohui Zhu, lecturer at the School of Advanced Technology, XJTLU

- Researched and applied the object detection in unmanned surface vehicles and unmanned aerial vehicles
- Researched the application of binocular cameras in depth and area estimation

Water environment monitoring and data modeling | XJTLU | Research Assistant Sep 2019 - Oct 2020
Advisor: Yong Yue, professor and head of Department of CSSE, XJTLU

- Collected water environment data and conducted 3D modeling based on NURBS algorithm
- Used this project to participate in multiple competitions

ACTIVITIES

ChinaVis 2020 Visual Analytics Challenge | ChinaVis Jun 2021

Advisor: Lingyun Yu, assistant professor of Department of Computing, XJTLU

- Conducted data processing, analysis and data modeling for visualization

The 3th Nvidia Sky Hackathon Competition | XJTLU Dec 2020

Advisor: Dechang Xu, professor and director of XJTLU International Innovation Hub, XJTLU

- Conducted data processing and neural network construction

Kaggle competitions | Kaggle Jul 2020 - Oct 2020

- Participated in Kaggle competition of Titanic: Machine Learning from Disaster
- Participated in Kaggle competition of House Prices: Advanced Regression Techniques
- Participated in Kaggle competition of Real or Not? NLP with Disaster Tweets
- Participated in Kaggle competition of Expedia Hotel Recommendations

Tencent Next Idea College Game Creative Production Competition | XJTLU Apr 2020 - Aug 2020

- Participated in game playing method and story design
- Conducted game development and scene modeling

AI Product Design Hackathon | XJTLU | Team Leader Jan 2020 - Mar 2020

Advisor: Tao Wang, council member and secretary general of Suzhou branch of CCF, China Computer Federation

- Collected data of COVID-19 and made forecast to its development trend
- Developed an application of COVID-19 information and trend inquire system

INTERNSHIP EXPERIENCE

Computer Vision Algorithm Intern | Chinese Academy of Sciences Jun 2021 - Present

- Worked as a Computer Vision algorithm intern in Institute of Intelligent Computing Technology, Chinese Academy of Sciences
- Conducting work related to Food Computing, such as building data sets, building neural network models, and optimizing products and algorithms

Research assistant | XJTU

Sep 2019 - Present

- Worked as a research assistant in the lab of Professor Yong Yue and Dr. Xiaohui Zhu
- Conducting research and application in Computer Vision and Image Processing

IT service | XJTU

Sep 2019 - Jun 2020

- Responsible for the daily management and maintenance of IT facilities in Xi'an Jiaotong-Liverpool University

ARTICLES**CONFERENCE**

- Supeng Kong, Surong Chen, Zhaoxi Zhong, Bin Xu, **Tianlei Shi**, Xiaohui Zhu, Yong Yue and Wei Wang. Multiobjective Path Planning Based on K-D Fusion Algorithm. *Journal of Physics: Conference Series*.

AWARD & HONORS

- Third Prize of the 12th China University Student Service Outsourcing Innovation and Entrepreneurship Competition National Competition Jun 2021
- Summer Undergraduate Research Fellowships of XJTU Jun 2021
- Honorable mention award in ChinaVis 2021 Visual Analytics Challenge Jun 2021
- Second prize in the entrepreneurial practice category (Category B) of the 12th China University Student Service Outsourcing Innovation and Entrepreneurship Competition Jiangbei New District-ZTE Eastern Regional Competition Jun 2021
- The second prize of the 6th "Chuanghui-Lake Cup" Suzhou Dushu-Lake University Student Innovation and Entrepreneurship Competition Jan 2021
- First Prize of XJTU 12th Student Innovation and Entrepreneurship Competition Oct 2020
- Industry TOP 4 of Division Final in London, U.K. of 4th Shenzhen International Education Innovation Conference Sep 2020
- Bronze Prize of International Track of The 6th China International College Students' "Internet+" Innovation and Entrepreneurship Competition Sep 2020
- Top 4% in Kaggle competition of House Prices: Advanced Regression Techniques Aug 2020
- Top 6% in Kaggle competition of Real or Not? NLP with Disaster Tweets Aug 2020
- Second Prize of Jiangsu Province Final of The 6th China International College Students' "Internet+" Innovation and Entrepreneurship Competition Aug 2020
- First Prize of XJTU School Competition of The 6th China International College Students' "Internet+" Innovation and Entrepreneurship Competition Jun 2020
- Third Prize of 2020 XJTU AI Product Design Hackathon online finals Feb 2020
- Relevant patent of the application of COVID-19 information and trend inquire system Processing
- Volunteer certificate (more than 50 hours) Oct 2020

SKILLS

- Machine learning, deep learning skills, and necessary research skills
- Programming Languages: Java, Python, C/C++, Tensorflow, OpenGL, OpenCV