Xin Liu

lolmesx@gmail.com linkedin.com/in/xin-liu-tudelft https://l-kid.github.io/

Skills

Technical: Competent with Python, Java, C++, PyTorch, TensorFlow, Git, HPC, Google Cloud Platform, Pandas, Numpy, Scikit-learn, Machine Learning, Computer Vision, Deep Learning

Publications

- **Xin Liu**, Jan C van Gemert. "Objects do not disappear: Video object detection by single-frame object location anticipation". **ICCV 2023**.
- **Xin Liu***, Ombretta Strafforello*, Klamer Schutte, and Jan C van Gemert. "Video Bagnet: short temporal receptive fields increase robustness in long-term action recognition". **ICCV 2023** workshop.
- **Xin Liu**, Silvia L Pintea, Fatemeh Karimi Nejadasl, Olaf Booij, Jan C van Gemert. "No frame left behind: Full Video Action Recognition". **CVPR 2021**.
- Xiangwei Shi*, Yunqiang Li* , **Xin Liu*** and Jan C van Gemert. "WeightAlign: Normalizing Activations by Weight Alignment". **ICPR 2020**. (*co-first author)
- **Xin Liu**, Seyran Khademi, and Jan C van Gemert. "Cross domain image matching in presence of outliers". **ICCV 2019** *Workshop Transferring and Adaptive Source Knowledge in Computer Vision*.

Education

Computer Vision Lab, Delft University of Technology, Netherlands **07/2019 - present**

PhD in Efficient Deep Learning

- Research interests: Computation and data efficient deep learning and computer vision models, Video Understanding, Transformers, Video/Image Generative models

Delft University of Technology, Netherlands **09/2016 - 08/2018**

MSc in Computer Science (Graduated with distinction)

Harbin Institute of Technology, China **09/2011 - 07/2015**

B.S. in Electrical Engineering and Automation

Work Experience

Machine Learning Research Scientist, Veridi Technologies BV, Netherlands **11/2021 - 12/2022**

- Led a team to develop machine learning and computer vision models and services using **Python**, **Spark**, and **Google Cloud Platform** for the startup and its customers to enable high throughput and high accuracy diagnostics for soil microorganisms and plant pathogens by image classification and detection.

Research Intern, Tencent (YouTu Lab), Shenzhen, China **04/2021 - 10/2021**

- Explored and researched unsupervised anomaly object detection. (**Python, PyTorch**)
- Developed and deployed the generative models in the production pipeline for real-time detection.

Software Engineer, ING, Amsterdam, Netherlands **10/2018 - 06/2019**

- Built a backend with **Scala** and **Python** for a file recommendation and management system to use the knowledge graph models for easier file search with real-time responses and recommendations.
- Contributed to open source project lyft/amundsen in **Python** and integrated functions with team projects.

TA of Deep Learning Course, Delft University of Technology, Netherlands **02/2018 - 06/2018**

- Guided students through the paper presentations and coding experiments in **Python** and **Google Colab**.
- Supervised 3 groups of students working on reproducing papers.

Software Development Intern, Philips Lighting, Eindhoven, Netherlands **09/2017 - 12/2017**

- Developed a generic sensor-luminaire/controller interface to transparently upload data to the cloud.
- Implemented the design in **C** and **C++**, and built the test cases in **C#**
- The implementation got approved by my host and manager and would be integrated into their future development.

Miscellaneous

Reviewer Activity

Conferences: CVPR, ECCV, ICCV, JVCIR

Research Talk

Invited talk at **Microsoft** ASG UK, “Efficient Video Object Detection by Forecasting”, March 2023

Thesis Supervision

- Godwin Rayan Chandran, “Masked Video Object Detection” (MSc, 2022)
- Damian Voorhout, “Explaining Overthinking in Multi-Scale Dense Networks” (MSc, 2021)
- Sunwei Wang, “Video Object Detection with Sparse Annotations” (MSc, 2021)

Teaching

Deep Learning, Master AI course, Delft University of Technology, 2020 - 2023