

Xinyue Hao

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Research Interest

Improving efficiency in visual tasks, particularly **video understanding**.

- **Training stage:** dataset pruning, coresnet selection
- **Inference stage:** token selection

Education

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|---|---|
| The University of Edinburgh <i>Ph.D. in Centre for Doctoral Training in Robotics and Autonomous Systems</i> Supervisors: Prof. Laura Sevilla-Lara, Prof. Robert Fisher | Sep. 2022 – Present <i>Edinburgh, UK</i> |
| The University of Edinburgh <i>M.Sc in Artificial Intelligence</i> Course GPA: Distinction Supervisor: Prof. Hakan Bilen Thesis: Informative Novelty Detection for Visual Object Recognition | Sep. 2020 – Aug. 2021 <i>Edinburgh, UK</i> |
| Beijing University of Posts and Telecommunications | Sep. 2016 – Jun. 2020 |
| Queen Mary University of London <i>B.Eng in Telecommunications Engineering with Management (Joint Bilingual Program)</i> Overall GPA: 89/100 (Top 5%) | <i>Beijing, China</i> |

Publications

[1] It's a Matter of Time: Three Lessons on Long-Term Motion for Perception.

Willem Davison, **Xinyue Hao**, Laura Sevilla-Lara
Under Review, 2026.

[2] Progressive Data Dropout: An Embarrassingly Simple Approach to Faster Training.

Shriram M S*, **Xinyue Hao***, Shihao Hou, Yang Lu, Laura Sevilla-Lara, Anurag Arnab, Shreyank N. Gowda
Advances in Neural Information Processing Systems (NeurIPS), 2025.

[3] Principles of Visual Tokens for Efficient Video Understanding.

Xinyue Hao, Gen Li, Shreyank N. Gowda, Robert B. Fisher, Jonathan Huang, Anurag Arnab, Laura Sevilla-Lara
International Conference on Computer Vision (ICCV), 2025.

[4] Watt for what: Rethinking deep learning's energy-performance relationship.

Shreyank N. Gowda, **Xinyue Hao**, Gen Li, Shashank Narayana Gowda, Xiaobo Jin, and Laura Sevilla-Lara
European Conference on Computer Vision Workshop (ECCV Workshop), 2024.

[5] OpenLORIS-Object: A robotic vision dataset and benchmark for lifelong deep learning.

Qi She, Fan Feng, **Xinyue Hao**, Qihan Yang, Chuanlin Lan, Vincenzo Lomonaco, Xuesong Shi et al.
IEEE international conference on robotics and automation (ICRA), 2020.

Work & Intern Experience

Alibaba

Algorithm Engineer

Jan. 2022 – Jul. 2022

Beijing, China

- Responsible for improving the pre-ranking algorithm in Lazada's advertisement recommendation system.

ByteDance

Research Intern

Aug. 2021 – Dec. 2021

Beijing, China

- Responsible for improving the personalized ranking algorithm in the Douyin advertising recommendation system.

Professional Service

- **Conference Reviewer:** CVPR, ECCV

- **Teaching Assistant (MSc courses):** Machine Learning Practical, Applied Machine Learning, Computer Vision