Preface

This volume contains the Proceedings of the First Gaze Meets ML workshop, held on December 3rd, 2022 in conjunction with the thirty-sixth Annual Conference on Neural Information Processing Systems (NeurIPS) 2022 in New Orleans, USA. With the emergence of immersive technologies, now more than ever, there is a need for experts of diverse backgrounds (*e.g.*, machine learning, vision, and neuroscience communities) to share expertise and contribute to a deeper understanding of the intricacies related to cost-efficient human supervision signals (*e.g.*, eye-gaze) and their utilization towards bridging human cognition and AI. The goal of this workshop was to bring together an active research community to collectively drive progress in defining and addressing core problems related to gaze-assisted machine learning, exchange ideas and explore new avenues for collaboration.

The workshop received 30 submissions, which underwent a blind review process by 3 reviewers. It resulted in selecting - based on relevance and quality - 7 oral (6 full papers and one non-archival abstract) and 11 poster presentations (8 full papers and 3 non-archival abstracts). The program included Prof. Jürgen Schmidhuber as keynote speaker inaugurating the workshop and talks from invited speakers from a broad range of relevant research fields. In addition, the audience participated in breakout session discussions on five selected topics, adding further depth to the workshop: (1) Fairness in gaze estimation, (2) Understanding and capturing the peripheral vision and its applications, (3) Annotating through eye gaze: From explicit to implicit annotation, (4) Ethical and social responsibility of eye tracking. Each breakout was led by presenters (invited speakers or authors) and was moderated by the organizers to yield thought-provoking discussions on each topic.

The workshop covered a wide range of topics in gaze estimation and visual attention, including novel methods and frameworks, benchmark datasets, and models for decoding attention from gaze data. The papers touched upon subjects such as representation learning, integration of gaze into machine learning models, learning from expert gaze, intention estimation, attention map generation, skill classification, and more. Overall, this highlights the breadth and depth of current research in the field of gaze-assisted machine learning.

The organizers of Gaze Meets ML would like to express their gratitude to the NeurIPS 2022 organizing committee, the PMLR staff, and the review team for their support and hard work in making the workshop a success. We would also like to thank our sponsors for their financial support - GazePoint and the Virginia Tech Computer Science Department, without which the workshop would not have been possible. Finally, we would like to thank all the participants and authors who submitted their work and made this workshop an exciting and dynamic forum for the exchange of ideas and knowledge.

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