

# Alessandro Flaborea

PhD in Computer Science

## EDUCATION

### University of Amsterdam (Dec. 2023 - Feb. 2024)

Visiting research

- **Supervisor:** Professor Pascal Mettes

### Sapienza University of Rome (2021–2024)

Ph.D. in Computer Science

- PhD focused on computer vision, specialized in the analysis of human behaviours (e.g. pose forecasting, anomaly detection, egocentric vision) and interpretability.
- Funded by Regione Lazio and Datawizard s.r.l.
- **Supervisor:** Professor Fabio Galasso

### Sapienza University of Rome (2018–2020)

MSc Data Science – 110 cum laude/110

- **Thesis:** Query-Guided Few-Shot Learning

### University of Udine (2014–2018)

BSc Computer Science

- **Thesis:** Integration and Interoperability in public administration systems
- **Study Abroad Program (Erasmus+):** University of Gothenburg, Sweden, 6 months

## PUBLICATIONS

- **A. Flaborea**, G.M. D'Amely Di Melendugno, L. Plini, L. Scofano, E. De Matteis, A. Furnari, G.M. Farinella, F. Galasso, "PREGO: online mistake detection in Procedural EGOcentric videos", Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2024
- **A. Flaborea**, L. Collorone, G.M. D'Amely Di Melendugno, S. D'Arrigo, B. Prenkaj, F. Galasso, "Multimodal Motion Conditioned Diffusion Model for Skeleton-based Video Anomaly Detection", Proceedings of the IEEE/CVF International Conference on Computer Vision (ICCV), 2023
- M.R. Ur Rahman, L. Scofano, E. De Matteis, **A. Flaborea**, A. Sampieri, F. Galasso. "Best Practices for 2-Body Pose Forecasting". Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR) Workshops, 2023
- **A. Flaborea**, Bardh Prenkaj, Bharti Munjal, Marco Aurelio Sterpa, Dario Aragona, Luca Podo, Fabio Galasso. "Are We Certain It's Anomalous?" Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR) Workshops, 2023, pp. 2896-2906

- **A. Flaborea**, B. Prenkaj, B. Munjal, M.A. Sterpa, D. Aragona, L. Podo, F. Galasso. "Are We Certain It's Anomalous?", Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR) Workshops, 2023
  - B. Munjal, **A. Flaborea**, S. Amin, F. Tombari, F. Galasso. "Query-guided networks for few-shot fine-grained classification and person search". Pattern Recognition, 2023, vol. 133
  - B. Prenkaj, D. Aragona, **A. Flaborea**, F. Galasso, S. Gravina, L. Podo, E. Reda, P. Velardi. "A self-supervised algorithm to detect signs of social isolation in the elderly from daily activity sequences." Artificial Intelligence in Medicine, 2023
  - **A. Flaborea**, G.M. D'Amely di Melendugno, S. D'Arrigo, M.A. Sterpa, A. Sampieri, F. Galasso. "Contracting Skeletal Kinematics for Human-Related Video Anomaly Detection", Under Review
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## TEACHING EXPERIENCE

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### Teaching Assistant (2019–2022)

Sapienza University of Rome

- "Advanced Machine Learning", MSc Data Science, 2022
  - "Fundamental of Data Science", MSc Data Science, 2020-2022
  - "Algorithmic Methods of Data Mining", MSc Data Science, 2019
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## AWARDS & FUNDING

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- **Best Paper Award:** The work "Best Practices for 2-Body Pose Forecasting" was awarded as best paper of the Precognition workshop at CVPR 2023
  - **Ph.D. Scholarship:** Winner of the PhD Scholarship (Funded by Regione Lazio and Datawizard s.r.l.)
  - **Teaching Assistant:** Winner of the scholarship as Teaching Assistant of the Google Training Camp for the MSc in Data Science.
  - **Teaching Assistant:** Winner of the scholarships as Teaching Assistant of the courses "Algorithmic Methods of Data Mining", "Fundamentals of Data Science" and "Advanced Machine Learning" of the MSc in Data Science.
  - **Erasmus+ Program:** Winner of 6 months of scholarship.
  - **Datathon 2019:** Awarded with a grant of 10.000€ for the project winner of the competition "Datathon", organized by the Italian Ministry of Economic Development.
  - **"Stats Under the Stars" Hackathon 2019:** Awarded as the best team using SAS software and platform, organized by Bocconi University, Milan, Italy.
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## CONFERENCES & PRESENTATIONS

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- Invited Speaker - Data Science Hub of Ferrari S.p.A., Topic: "Generative AI Models & Computer Vision Use Cases"
  - Invited Speaker - Visual Anomaly and Novelty Detection workshop, CVPR 2023: "Are we certain it's anomalous?" spotlight paper presentation.
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## WORK EXPERIENCES

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- **Software Developer**  
Infratel Italia, Nov 2019 to Jan 2020  
Development of the project winner of the Datathon 2019. Main tools used during the experience: Python, MySQL, QGis
  - **Software Developer**  
Data Elaboration Center, Municipality of Lignano, Italy, Oct. 2017 to Jan 2018  
Thesis research internship. Main tools used during the experience: Python, Django
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