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EXPERIENCE

POSTDOCTORAL RESEARCH ASSISTANT

Apr 2020 - present

Centre of Intelligent Sensing, Queen Mary University of London, United Kingdom

- Managed two international projects (CORSMAL, GraphNEx) by coordinating meetings, engagement activities, annual project reporting, disseminating research outputs, presenting at international conferences
- Led a collaboration with 4 people on benchmarking and explaining methods for image privacy classification by coordinating the activity, designing experiments, collecting feedback, paper writing
- Idiap Create Challenge 2024 (acceptance rate: 20%): developed prototype together with other two people to pitch startup idea for detecting misleading information in online media (Python)
- Organised 4 workshops and 5 competitions for human-robot collaboration at international conferences
- Supervised PhD and MSc students on computer vision models for object pose estimation and affordance segmentation, a framework for human-to-robot handovers, and paper writing: 4 conference publications
- Collaborated on the writing of a publication on adversarial training for image classification and of a book chapter on adversarial machine learning in computer vision
- Delivered technical presentations on “Deep Learning Models for Computer Vision”
- Reviewed manuscripts for 6 international journals and 9 international conferences

RESEARCH ASSISTANT

Oct 2019 – Mar 2020

Centre of Intelligent Sensing, Queen Mary University of London, United Kingdom

- Designed and developed a computer vision algorithm for object shape estimation in Python, paper writing
- Collected and curated a multi-modal dataset and an image dataset for human-to-robot collaboration

COLLABORATOR

Apr – Sep 2015

MMLab research group, University of Trento, Italy

- Developed notification service of a medical-to-patient application in Android and ASP.NET MVC 4
- Collected and annotated two data-sets for the synchronisation of multi-user event media

INTERN

Mar – Aug 2014

Perception Team, INRIA Grenoble Rhône-Alpes, France

- Derived the mathematical formulation of a probabilistic graphical models for multiple object tracking
- Developed the prototype in MATLAB and managed the experimental validation

AWARDS

- *Outstanding reviewer* for high-quality formal reviews and constructive feedback at 5 international conferences: ECCV 2024, CVPR 2024, ICASSP 2023, ICASSP 2022, ICIP 2020
- *2022 CHIST-ERA Open Science Success Story* for the project CORSMAL by coordinating and managing the release of data, software, and machine learning models under Open Science practices

SKILLS

PROGRAMMING AND LIBRARIES

- Python, C/C++, MATLAB, Bash and Linux Shell
- PyTorch, PyTorch Geometric, OpenCV, Numpy, Pandas
- Git, Anaconda, ZeroMQ
- Object-oriented programming

LANGUAGES

- English: professional proficiency
- Italian: mother tongue
- Spanish: intermediate
- French: beginner

EDUCATION

PH.D. IN ELECTRONIC ENGINEERING

Sep 2020

Queen Mary University of London, United Kingdom

- Thesis: “Local features for view matching across independently moving cameras”
- Designed and developed image matching methods and a decentralising framework to recognise view overlaps for collaborative navigation and scene reconstruction (C++/MATLAB)
- Collaborated on designing and implementing an algorithm for audio-visual speaker tracking (MATLAB)
- Student lab demonstrator for Introduction to Computer Vision module

MASTER’S DEGREE IN TELECOMMUNICATIONS ENGINEERING

Mar 2015

University of Trento, Italy

- 2013 Intel Business Challenge Europe: prepared business plan and pitch for startup idea with two people
- Thesis: “ViProT: A visual probabilistic model for moving interest point clusters tracking”
- Developed a clustering approach for sub-event detection in large image galleries and a forensic technique for image splicing detection in MATLAB, carried out experimental analysis and project reporting
- Developed a Facebook application for visualising user’s photos as a collage (PHP, HTML, Javascript, CSS)

BACHELOR’S DEGREE IN ELECTRONICS AND TELECOMMUNICATION ENGINEERING

Feb 2012

- Thesis: “Optimization of coverage probability in radio mobile cellular networks given a traffic analysis”
- Developed a VBScript macro to interface with the software ATOLL for coverage probability optimisation

ADDITIONAL TRAINING

Research Data Management and Sharing, The University of North Carolina & The University of Edinburgh, Coursera, 2021

SELECTED PUBLICATIONS

Full list of publications and related research outputs (software, data, models) available [here](#)

- **A. Xompero**, M. Bontonou, J. Arbona, E. Benetos, A. Cavallaro, “Explaining models relating objects and privacy”, *IEEE/CVF International Conference on Computer Vision and Pattern Recognition Workshop*, 2024
- **A. Xompero**, A. Cavallaro, “Cross-Camera View-Overlap Recognition”, *European Conference on Computer Vision Workshop*, 2022
- **A. Xompero**, S. Donaher, V. Iashin, F. Palermo, G. Solak, C. Coppola, R. Ishikawa, Y. Nagao, R. Hachiuma, Q. Liu, F. Feng, C. Lan, R. H. M. Chan, G. Christmann, J. Song, G. Neeharika, C. K. T. Reddy, D. Jain, B. U. Rehman, A. Cavallaro, “The CORSMAL benchmark for the prediction of the properties of containers”, *IEEE Access*, 2022
- **A. Xompero**, O. Lanz, A. Cavallaro, “A spatio-temporal multi-scale binary descriptor”, *IEEE Transactions on Image Processing*, 2020
- T. Apicella, **A. Xompero**, P. Gastaldo, A. Cavallaro, “Segmenting Object Affordances: Reproducibility and Sensitivity to Scale”, *European Conference on Computer Vision Workshop*, 2024
- T. Apicella, **A. Xompero**, E. Ragusa, R. Berta, A. Cavallaro, P. Gastaldo, “Affordance segmentation of hand-occluded containers from exocentric images”, *International Conference on Computer Vision Workshop*, 2023
- R. Sanchez-Matilla, K. Chatzilygeroudis, A. Modas, N. Ferreira Duarte, **A. Xompero**, P. Frossard, A. Billard, A. Cavallaro, “Benchmark for Human-to-Robot Handovers of Unseen Containers with Unknown Filling”, *IEEE Robotics and Automation Letters*, 2020

RIGHT TO WORK

Settled Status under the EU Settlement Scheme