

Alejandro Pardo

PHD CANDIDATE · COMPUTER VISION

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Professional Experience

Adobe Research

RESEARCH INTERN

San Jose, California

June 2023- September 2023

- Research Internship in vision and language models for video editing tasks. Supervised by Fabian Caba Heilbron.

Embodied AI Labs at Intel Research

RESEARCH INTERN

Munich, Germany

August 2022- November 2022

- Research Internship working on Vision and Language models for general segmentation tasks. Supervised by Matthias Mueller.

Publication and Research Experience

Towards Automated Movie Trailer Generation [link]

CONFERENCE ON COMPUTER VISION AND PATTERN RECOGNITION (CVPR) - 2024

- **Publication:** Dawit Mureja Argaw, Mattia Soldan, **Alejandro Pardo**, Chen Zhao, Fabian Caba Heilbron, Joon Son Chung, & Bernard Ghanem. (2024). "Towards Automated Movie Trailer Generation." On CVPR, 2024.
- **Description:** Automatic Trailer generation system that generates plausible trailers from a full movie. Our approach is inspired by machine translation, and approaches trailer generation as a sequence-to-sequence task, significantly outperforming existing methods across various metrics.

MovieCuts: A New Dataset and Benchmark for Cut Type Recognition [link]

EUROPEAN CONFERENCE ON COMPUTER VISION (ECCV) - 2022

- **Publication:** **Alejandro Pardo**, Fabian Caba Heilbron, Juan León Alcázar, Ali Thabet, & Bernard Ghanem. (2021). "MovieCuts: A New Dataset and Benchmark for Cut-Type Recognition." On ECCV, 2022.
- **Description:** Understanding movies and their structural patterns is a crucial task in decoding the craft of video editing. We construct a large-scale dataset called MovieCuts, which contains more than 170K video clips labeled among ten cut types.

Learning to Cut by Watching Movies [link]

INTERNATIONAL CONFERENCE ON COMPUTER VISION (ICCV) - 2021

- **Publication:** **Alejandro Pardo**, Fabian Caba Heilbron, Juan León Alcázar, Ali Thabet, & Bernard Ghanem. (2021). "Learning to Cut by Watching Movies." On ICCV, 2021.
- **Description:** We propose a new method and pipeline to create video editing cut recommendations. Our method utilizes the information of already edited content to learn patterns between plausible and non-plausible cuts via contrastive learning.

MAD: A Dataset for Language Grounding in Videos from Movie Audio Descriptions [link]

CONFERENCE ON COMPUTER VISION AND PATTERN RECOGNITION (CVPR) - 2022

- **Publication:** Mattia Soldan, **Alejandro Pardo**, Juan León Alcázar, Fabian Caba Heilbron, Chen Zhao, Silvio Ginacola & Bernard Ghanem. (2021). "MAD: A Scalable Dataset for Language Grounding in Videos from Movie Audio Descriptions." On CVPR, 2022.
- **Description:** A novel benchmark that departs from the paradigm of augmenting existing video datasets with text annotations and focuses on crawling and aligning available audio descriptions of mainstream movies. MAD's collection strategy enables a novel and more challenging version of video-language grounding, where short temporal moments (typically seconds long) must be accurately grounded in diverse long-form videos that can last up to three hours.

BAOD: Budget-Aware Object Detection [link]

LATINX IN AI WORKSHOP AT CVPR - 2021 [BEST PAPER AWARD]

- **Publication:** **Alejandro Pardo**, Xu Meng Meng, Ali Thabet, Pablo Arbelaez, & Bernard Ghanem. (2021). BAOD: Budget-Aware Object Detection. In Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR) Workshops (pp. 1247-1256).
- **Description:** We study the problem of object detection from a novel perspective in which annotation budget constraints are taken into consideration. When provided with a fixed budget, we propose a strategy for building a diverse and informative dataset that can be used to optimally train a hybrid supervised (weakly and fully supervision combined) detector.

RefineLoc: Iterative Refinement for Weakly-Supervised Action Localization [link]

WINTER CONFERENCE ON APPLICATIONS OF COMPUTER VISION (WACV) - 2021.

- **Publication:** **Alejandro Pardo**, Humam Alwassel, Fabian Caba Heilbron, Ali Thabet, & Bernard Ghanem. (2021). RefineLoc: Iterative Refinement for Weakly-Supervised Action Localization. In Proceedings of the IEEE/CVF Winter Conference on Applications of Computer Vision (WACV) (pp. 3319-3328).
- **Description:** RefineLoc is a weakly-supervised temporal action localization method. RefineLoc uses an iterative refinement approach by estimating and training on snippet-level pseudo ground truth at every iteration. Additionally, our iterative refinement process significantly improves the performance of two state-of-the-art methods, setting a new state-of-the-art on THUMOS14.

Academic Experience

ELLIS Winter School on Foundation Models

Amsterdam, Netherlands

ATTENDEE

2024

- Attendance, First Winter School on Foundation Models. Organized by the ELLIS Unit at University of Amsterdam. Focused on the construction, application, and analysis of current foundation models within Computer Vision and Natural Language Processing domains.

AI for Creative Video Editing and Understanding (CVEU) Workshop

ICCV-2021

CO-ORGANIZER AND PR CHAIR

- Co-organizer of the first CVEU Workshop at ICV2021. I worked as Web and Public Relations Chair in the main role while supporting the other tasks like the call for papers, industry speakers invitations, among others..

LatinX in AI Workshop

CVPR-2021

CO-ORGANIZER AND WEB CHAIR

- Co-organizer and web chair of the first LatinX in AI workshop at CVPR.

King Abdullad University of Science and Technology (KAUST)

Thuwal, Saudi Arabia

RESEARCH VISITING STUDENT

2018

- Visiting Student at the Image and Video Understanding Lab (IVUL) under the advice of Professor Bernard Ghanem where I developed part of my master thesis project. The work was eventually accepted to a CVPR Workshop where it was honored with the best paper award.

Universidad de los Andes

Bogota, Colombia

RESEARCH ASSISTANT

2017

- Research assistant under the supervision of Pablo Arbelaez at the Biomedical Computer Vision (BCV) Group.

Universidad de los Andes

Bogota, Colombia

TEACHING ASSISTANT

2014-2015

- Teaching Assistant for the course Science, Technology and Gender, by Professor Alba Avila.

Universidad de los Andes

Bogota, Colombia

TEACHING ASSISTANT

2013

- Teaching Assistant for the course Digital Electronics, by Professor Antonio Garcia Roza.

Presentation

Perceiving Systems Lab

Max Planck Institute for Intelligent Systems

INVITED SPEAKER

September, 2012

- I gave a talk about Computer Vision and automated Video Editing at the Perceiving Systems Lab, lead by Michael Black.

Education

King Abdullah University of Science and Technology - KAUST

Thuwal, Saudi Arabia - 23955-6900

PH.D. IN ELECTRICAL ENGINEERING

2019 - Now

Universidad de los Andes

Bogotá, Colombia - 111711

M.S. IN BIOMEDICAL ENGINEERING

2017 - 2018

Universidad de los Andes

Bogotá, Colombia - 111711

B.S. IN BIOMEDICAL ENGINEERING

2010 - 2016

B.S. IN ELECTRICAL ENGINEERING

2010 - 2016

Honors & Awards

2022 **Awarded**, Outstanding Reviewer Award

ECCV 2022

2021 **First Place**, Best Paper Award

LatinX in AI @ CVPR

2020 **Awarded**, Outstanding Reviewer Award

CVPR 2020

2020 **Awarded**, Outstanding Reviewer Award

BMVC 2020

2019 **Awarded**, KAUST Fellowship for PhD Studies