

# Matías Andrés Mendieta

📞 +1 (704) 773 4204 • ✉ matias.mendieta@ucf.edu • 🌐 mmendiet.github.io

## Education

---

### Ph.D. Computer Science

Aug. 2021 – Present

University of Central Florida

Advisor: Dr. Chen Chen, GPA: 4.0/4.0

Transfer with advisor from the University of North Carolina at Charlotte

Ph.D. in Electrical Engineering, Aug. 2020 – July 2021

### M.S. Electrical Engineering

May 2019 – May 2020

University of North Carolina at Charlotte

Advisor: Hamed Tabkhi, GPA: 4.0/4.0

### B.S. Computer Engineering

Aug. 2016 – May 2019

University of North Carolina at Charlotte

GPA: 3.96/4.0

## Experience

---

### Professional

---

#### Machine Learning Intern

May 2023 – Aug. 2023

Apple

Cupertino, CA

Investigated generative AI methods for image and video inpainting.

#### Applied Scientist Intern

May 2022 – Nov. 2022

Amazon AWS

Santa Clara, CA

Conducted computer vision research in self-supervised learning for geospatial foundation models.

#### Software Engineer Intern

May 2018 – Aug. 2018

IBM

Durham, NC

Designed, integrated, and tested full proxy functionality for a SASP load balancer simulator.

### Academic

---

#### Graduate Research Assistant

Aug. 2021 – Present

Center for Research in Computer Vision, UCF

Orlando, FL

Investigating resource and label efficient deep learning methods for computer vision and federated learning.

#### Graduate Research and Teaching Assistant

June 2019 – July 2021

Electrical and Computer Engineering, UNC Charlotte

Charlotte, NC

Developed real-time computer vision algorithms for autonomous systems and taught weekly recitations for courses.

#### Undergraduate Research Assistant

June 2017 – May. 2019

Media Laboratory, UNC Charlotte

Charlotte, NC

Conducted acoustic metamaterials research with the NSF Center for Metamaterials and Harris Corporation.

## Selected Publications

---

M. Mendieta, B. Han, X. Shi, Y. Zhu, C. Chen

Towards Geospatial Foundation Models via Continual Pretraining

ICCV, 2023.

J. Luo, M. Mendieta, C. Chen, S. Wu

PGFed: Personalize Each Client's Global Objective for Federated Learning

ICCV, 2023 [Oral](#).

- G. Sun, **M. Mendieta**, J. Luo, S. Wu, C. Chen  
*FedPerfix: Towards Partial Model Personalization of Vision Transformers in Federated Learning*  
 ICCV, 2023.
- C. Zheng, **M. Mendieta**, C. Chen  
*POSTER: A Pyramid Cross-Fusion Transformer Network for Facial Expression Recognition*  
 ICCV AMFG Workshop, 2023.
- C. Zheng, **M. Mendieta**, T. Yang, G. Qi, C. Chen  
*FeatER: An Efficient Network for Human Reconstruction via Feature Map-Based TransformER*  
 CVPR, 2023.
- M. Mendieta**, T. Yang, P. Wang, M. Lee, Z. Ding, C. Chen  
*Local Learning Matters: Rethinking Data Heterogeneity in Federated Learning*  
 CVPR, 2022 [Best Paper Finalist](#).
- C. Zheng, **M. Mendieta**, P. Wang, A. Lu, C. Chen  
*A Lightweight Graph Transformer Network for Human Mesh Reconstruction from 2D Human Pose*  
 ACM Multimedia, 2022.
- T. Yang, S. Zhu, **M. Mendieta**, P. Wang, R. Balakrishnan, M. Lee, T. Han, M. Shah, C. Chen  
*MutualNet: Adaptive ConvNet via Mutual Learning from Different Model Configurations*  
 IEEE Transactions on Pattern Analysis and Machine Intelligence, 2021.
- M. Mendieta** and H. Tabkhi  
*CARP<sup>e</sup> Posterum: A Convolutional Approach for Real-time Pedestrian Path Prediction*  
 AAAI, 2021.
- C. Zheng, S. Zhu, **M. Mendieta**, T. Yang, C. Chen, Z. Ding  
*3D Human Pose Estimation with Spatial and Temporal Transformers*  
 ICCV, 2021.
- A. George, A. Ravindran, **M. Mendieta** and H. Tabkhi  
*Mez: An Adaptive Messaging System for Latency-Sensitive Multi-Camera Machine Vision at the IoT Edge*  
 IEEE Access, 2021.
- C. Neff\*, **M. Mendieta\***, S. Mohan, M. Baharani, S. Rogers, and H. Tabkhi  
*REVAMP<sup>2</sup>T: Real-time Edge Video Analytics for Multi-camera Privacy-aware Pedestrian Tracking*  
 IEEE Internet of Things Journal (IoT-J) Special Issue on Privacy and Security in Distributed  
 Edge Computing and Evolving IoT, 2020. \* Equal Contribution
- M. Mendieta**, C. Neff, D. Lingerfelt, C. Beam, A. George, S. Rogers, A. Ravindran, and H. Tabkhi  
*A Novel Application/Infrastructure Co-design Approach for Real-time Edge Video Analytics*  
 In IEEE SoutheastCon, 2019.

## Patents

---

- Detection of Genuine Social Media Profiles** Dec. 2018  
 Affiliation: IBM — Publication Number: 20200186539  
 A method, system and computer program product for performing the detection of genuine social media profiles.
- Customizing Product Announcements Based on Product Usage** Nov. 2018  
 Affiliation: IBM — Publication Number: 20200143385  
 A computer-implemented method that includes tracking usage history of a plurality of components of products.

## Skills and Academic Service

---

**Programming Languages, Frameworks, and Tools:** Python, PyTorch, C/C++, MATLAB  
**Conference Reviewer:** CVPR, ICCV, ECCV, ICME, DAC  
**Journal Reviewer:** IoT-J, IJNC