

JOSEPH FIORESI



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EDUCATION

- Ph.D. in Computer Science: *University of Central Florida (UCF)*. GPA: **4.0** **May 2026**
Advisor: Dr. Mubarak Shah, Center for Research in Computer Vision (CRCV)
ORC Doctoral Fellowship
- B.S. in Computer Science: *University of Central Florida (UCF)*. GPA: **4.0** **May 2022**
Mathematics Minor / National Merit Finalist / Burnett Honors Scholar

PUBLICATIONS

- Fioresi, J.**, Dave, I.R. and Shah, M., 2023. TeD-SPAD: Temporal Distinctiveness for Self-supervised Privacy-preservation for video Anomaly Detection. In *Proceedings of the IEEE/CVF International Conference on Computer Vision*. 2023.
- Fioresi, J.**, Colvin, D.J., Frota, R., Gupta, R., Li, M., Seigneur, H.P., Vyas, S., Oliveira, S., Shah, M. and Davis, K.O., 2021. Automated defect detection and localization in photovoltaic cells using semantic segmentation of electroluminescence images. *IEEE Journal of Photovoltaics*, 12(1), pp.53-61.

WORK EXPERIENCE

- Graduate Research Assistant**, *CRCV, University of Central Florida* **August 2022 - Present**
- Perform rigorous theoretical computer vision research in various video understanding tasks with a specialization in privacy constraints and AI fairness.
 - Regularly engaged in collaborative research with peers and professors, fostering interdisciplinary cooperation.
 - First author paper in privacy-preserving anomaly detection accepted at the IEEE/CVF International Conference on Computer Vision (ICCV) 2023.
- Co-founder and Chief Technology Officer**, *Better Solar LLC* **April 2022 - Present**
- Secured startup funding through the DoE American-Made Solar Prize Round 5 competition.
 - Responsible for the development and deployment of a SaaS web application on Google Cloud Platform.
- Undergraduate Student Researcher**, *Computer Vision NSF REU* **Summer 2020**
- Participated in a fast-paced learning program designed to give realistic research experience.
 - Developed code to semantically segment defects in solar panels with a custom confidence threshold.
 - Oral presentation at Photovoltaic Specialists Conference, invited for publication in *IEEE Journal of Photovoltaics*.

PROFESSIONAL SKILLS

- Machine Learning/Artificial Intelligence
- Software as a Service (SaaS)
- Data Science
- Programming Language Proficiency: Python, JavaScript, Java, Swift, MATLAB & C
- Python Libraries: PyTorch, Matplotlib, OpenCV, Scikit-learn, Pandas, Streamlit
- Computer Vision
- Google Cloud Platform
- Software Development

EXTRACURRICULAR INVOLVEMENT

- 3rd Annual HSI Battle of the Brains Competition, 3rd Place Finish, *UCF Team Member* **Fall 2023**
- eBay HSI Battle of the Brains Scholarship Awardee
- NSF Center for Smart Streetscapes, *UCF Representative, Student Leadership Council* **Spring 2023 – Present**
- Central Florida Rowing Club, *Member/Officer* **Fall 2018 – Spring 2022**
- South Africa Service-Learning Study Abroad **Spring 2019**