

MARINA VICENS MIQUEL

Texas A&M University–Corpus Christi (TAMUCC)
Department of Computing Sciences
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EDUCATION

- Ph.D. Texas A&M University–Corpus Christi, expected 2025
Geospatial Computer Science Ph.D. Program Current GPA: **3.92**
- B.S. Texas A&M University–Corpus Christi, May 2020
Double Major: Computer Science, Mathematics
Magna Cum Laude

RESEARCH EXPERIENCE

- 2020 – Current NSF AI Institute: Artificial Intelligence for Environmental Sciences (AI2ES)
Graduate Research Assistant, Conrad Blucher Institute at TAMUCC
Research in Wet/Dry Shoreline GeoDetection using Deep Learning, and Water Level and Inundation Prediction using Deep Learning
- 2020 Research Intern at Lone Star UAS Center (LSUASC)
Research in UAV Damage Assessment using Deep Learning
- 2019 COSC Capstone Research Project
Constructed a Deep Learning Neural Network for Detecting Logo Images with Over 99% Accuracy

PUBLICATIONS

- 2022 Vicens-Miquel, Marina; Medrano, Antonio; Tissot, Philippe; Kamangir, Hamid; Starek, Michael. A Deep Learning Based Method to Delineate the Wet/Dry Shoreline and Compute its Elevation Using High-Resolution UAS Imagery. Remote Sensing MDPI. *(Submitted, pending review)*
- 2022 Vicens-Miquel, Marina; Medrano, Antonio; Tissot, Philippe; Kamangir, Hamid; Starek, Michael. Deep Learning Automatic Detection of the Wet/Dry Shoreline at Fish Pass, Texas. 2022 International Geoscience and Remote Sensing Symposium (IGARSS), Kuala Lumpur, Malaysia, 17-22, 2022.
- 2018 Rahnemoonfar, M., R. Murphy, M. Vicens-Miquel, D. Dobbs, A. Adams. Flooded Area Detection from UAV Images Based on Densely Connected Recurrent Neural Networks. International Geoscience and Remote Sensing Symposium (IGARSS), Valencia, Spain, July 22-27.

CONFERENCE PRESENTATIONS AND INVITED TALKS

- 2022 Vicens-Miquel, Marina; Medrano, Antonio; Tissot, Philippe; Kamangir, Hamid; Starek, Michael. Generalized Model for Wet/Dry Shoreline Detection and Total Water Level Elevation Using Deep Learning. Poster to be presented at the AGU Fall Meeting 2022, Chicago, IL, USA, December 12-16.

- 2022 Pilartes-Congo, Jose; Vicens-Miquel, Marina; Garcia, Isabel; Starek, Michael; Tissot, Philippe. Examining Different Photogrammetry and LiDAR Methodologies for Monitoring Coastal Elevation and Shoreline Changes. Poster to be presented at the AGU Fall Meeting 2022, Chicago, IL, USA, December 12-16.
- 2022 Vicens-Miquel, Marina; Tissot, Philippe; Medrano, Antonio. Deep Learning Architectures to Improve Coastal Water Level Predictions. Oral presentation at the 2022 ASBPA National Coastal Conference, Long Beach, CA, USA, September 13-16.
- 2022 Vicens-Miquel, Marina; Medrano, Antonio; Tissot, Philippe; Kamangir, Hamid; Starek, Michael. Generalized Model for Wet/Dry Shoreline Detection Using Deep Learning. Poster presentation at the 2022 ASBPA National Coastal Conference, Long Beach, CA, USA, September 13-16.
- 2022 Pilartes-Congo, José; Vicens-Miquel, Marina; Kastl, Matthew; Starek, Michael; Tissot, Philippe. Monitoring Changes in Shoreline and Coastal Elevation Using a ZED 2i Stereo Camera. Poster presentation at the 2022 ASBPA National Coastal Conference, Long Beach, CA, USA, September 13-16.
- 2022 Vicens-Miquel, Marina; Medrano, Antonio; Tissot, Philippe; Kamangir, Hamid; Starek, Michael. Deep Learning Automatic Detection of the Wet/Dry Shoreline at Fish Pass, Texas. Oral presentation at the 2022 IEEE International Geoscience and Remote Sensing Symposium (IGARSS), Kuala Lumpur, Malaysia, July 17-22.
- 2022 Vicens-Miquel, Marina; Medrano, Antonio; Tissot, Philippe; Kamangir, Hamid; Starek, Michael. Deep Learning Generalized Model for Wet/Dry Shoreline Detection. Oral presentation at the 2022 Texas Coastal Symposium, Corpus Christi, TX, USA, April 14.
- 2022 Vicens-Miquel, Marina; Medrano, Antonio; Tissot, Philippe; Kamangir, Hamid; Starek, Michael. Georeferenced AI Wet/Dry Shoreline Detection using UAV Imagery. Oral presentation at the ESRI Imagery and Remote Sensing Summit, Virtual, March 31.
- 2022 Vicens-Miquel, Marina; Medrano, Antonio; Tissot, Philippe; Kamangir, Hamid; Starek, Michael. Automated Wet/Dry Shoreline Delineation Using Deep Learning. GeoAI and CyberGIS for Advancing Spatial Decision Making. Oral presentation at the American Association of Geographers Annual Meeting, New York, NY, USA, February 25 – March 1.
- 2022 Vicens-Miquel, Marina; Medrano, Antonio; Tissot, Philippe; Kamangir, Hamid; Starek, Michael. Deep Learning Wet/Dry Shoreline Detection Using UAV Imagery. Oral presentation at the American Meteorological Society Annual Meeting, Houston, TX, USA, January 23-27.
- 2021 Vicens-Miquel, Marina; Medrano, Antonio; Tissot, Philippe; Kamangir, Hamid; Starek, Michael. Wet/Dry Shoreline Detection Using Deep Learning.

- Oral presentation at the 2021 ASBPA National Coastal Conference, New Orleans, LA, USA, September 28 – October 1.
- 2018 Rahnemoonfar, Maryam; Robin, Murphy; Vicens-Miquel, Marina; Dobbs, Dugan; Adams, Ashton. Flooded Area Detection From UAV Images Based on Densely Connected Recurrent Neural Networks. Oral presentation at the 2018 IEEE International Geoscience and Remote Sensing Symposium (IGARSS), Valencia, Spain, July 22-27.

HONORS AND AWARDS

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| 2022 – 2023 | TAMUCC International Presidential Graduate Research Scholarship (\$4,000) |
| 2022 – 2023 | TAMUCC College of S&E Graduate Research Scholarship (\$1,000) |
| 2022 – 2023 | TAMUCC Geospatial Engineering Graduate Research Scholarship (\$500) |
| 2021 – 2022 | TAMUCC International Presidential Graduate Research Scholarship (\$4,000) |
| 2021 – 2022 | TAMUCC College of S&E Graduate Research Scholarship (\$2,000) |
| 2021 – 2022 | TAMUCC Geospatial Engineering Graduate Research Scholarship (\$600) |
| 2020 – 2021 | TAMUCC International Presidential Graduate Research Scholarship (\$3,141) |
| 2020 – 2021 | TAMUCC College of S&E Graduate Research Scholarship (\$1,000) |
| 2020 – 2021 | TAMUCC Division of Research and Innovation Student Research Competition Award (\$800) |
| 2020 – 2021 | TAMUCC Geospatial Engineering Graduate Research Scholarship (\$1,000) |
| 2019 – 2020 | Athletic Department 5 th Year Scholarship (\$10,312.49) |
| 2019 – 2020 | Ruth A. Campbell School Endowed Scholarship (\$500) |
| 2019 – 2020 | Evening Post Pub Co.–KRIS TV Scholarship (\$500) |
| 2019 – 2020 | Exxon USA Found Scholarship (\$500) |
| 2018 – 2019 | M Collins UG Scholarship (\$8,400) |
| 2015 – 2020 | 6-time Dean's List Recipient |
| 2015 – 2020 | 8-time Athletic Department Academic Roll Recognition |
| 2015 – 2018 | 3-time Scholar Student-Athlete |