

Thomas E. Winning Jr.

6706 Rhonda Dr., Corpus Christi, TX 78412

twinning@islander.tamucc.edu

937-572-2241

Education

Texas A&M University-Corpus Christi (3.88/4.0): August 2014–August 2022 (expected)

- Ph.D. Coastal and Marine System Science

University of Hawai'i-Mānoa (3.52/4.0): August 2012–August 2014

- M.S. Meteorology

The University of Oklahoma (3.33/4.0): August 2004–May 2009

- B.S. Meteorology (3.28/4.0)
- Math Minor (3.0/4.0)

The Ohio State University (3.08/4.0): September 1997–March 2002

- B.S. Business Administration-Finance (3.01/4.0)

Academic Teaching Experience

Texas A&M University-Corpus Christi

Instructor of Record

Environmental Science 3351-Oceanography (Fall 2018, 2019)

- Guided students through initial research process, source acquisition and final presentation of a research topic of their choice
- Authored weekly assignments as well as mid-term and final examinations
- Mentored graduate colleagues in their class preparation by providing material and first time classroom guidance
- Assisted with students outside of class in searching for internships and other undergraduate opportunities
- Provided letters of recommendation upon request and assisted with initial resume preparation

Meteorology/Environmental Science 3403-Introduction to Meteorology (Summer II 2017)

- Modified available course content to adhere to a 5 week summer session
- Authored weekly quizzes to ensure content understanding and consistency of attendance
- Collaborated with the Corpus Christi National Weather Service Office to introduce the topic of hurricane safety and forecasting

Atmospheric Science 2301-Weather Observations (Spring 2017)

- Creation of both structure and content for initial course offering
- Designed exams, quizzes and homework commensurate with necessary knowledge to advance through Atmospheric Science curriculum
- Coordinated with guest speakers from the Corpus Christi National Weather Service office to provide-in class storm spotter training.
- Provided entire course content to the Atmospheric Science Department for use by future graduate instructors

University of Hawai'i-Mānoa

Graduate Teaching Assistant (2012-2014)

Meteorology 101 Lab & Meteorology 200 Atmospheric Processes and Phenomena

- Coordinated weekly lesson plan to provide hands on experiments highlighting key concepts of the fundamental principles of meteorology
- Administered quizzes and kept records of all grades throughout the semester
- Held weekly office hours for students seeking assistance with lab and homework assignments
- Responsible for grading of lecture mid-terms and final exams
- Substitute lecturer for Meteorology 101

Valley View Public School District-Germantown/Farmersville, OH

Certified, on-call K–12 substitute teacher (September 2002–May 2003)

- Carried out daily lesson plans outlined by instructor
- Distributed and collected assignments in accordance with standing lesson plan
- Aided students in completion of projects and assignments when appropriate
- Facilitated class discussions and lectured on topics when requested in accordance with normal teacher's lesson plans

Non-Academic Teaching Experience

Contender CrossFit-Corpus Christi, TX

- Registered L1 CrossFit Trainer
- Full time coach for over 150 membership athletes (January 2020-May 2021)
- Contributed to workout and programming preparation on a weekly basis
- Conducted daily athlete outreach to gym members in order to define personal goals for attendance, nutrition and personal fitness

Corpus Christi Museum of Science and History-Corpus Christi, TX: June 2019-August 2019

Summer Camp Counselor

- Assisted lead counselor with daily curriculum activities for 3rd-6th grade age group
- Led group discussion and activities in accordance with daily class activities
- Chaperoned campers and guided tours on fieldtrips related to weekly class themes
- Organized camp activity materials to coincide with daily lesson plan
- Appropriated daily food delivery to ensure availability of lunches and snacks for all attendees

Ultimate Leadership Martial Arts-Springboro, OH

- Achieved skill level of Senior blue belt (October 2010-June 2012)
- Student Taekwondo instructor (February 2012-June 2012)
- Assisted Senior and Master instructors with Warrior Kids (K-4) program classes
 - Focus on basic hand and foot strikes, sparring techniques and belt form movements

Farmersville/Jackson Township Joint Park Public Swimming Pool-Farmersville, OH

- Team taught and supervised daily swimming lessons (K-6) for both members and non-members
 - Focus range from a child's comfort with their face in the water to teaching the four strokes and preparation for junior lifesaving.

Research Employment

Texas A&M University-Corpus Christi -Corpus Christi, TX

Graduate Research Assistant (August 2014–Present)-Advisor: Dr. Feiqin Xie

- Dissertation Research Focus: Quantifying the impact of Horizontal Inhomogeneity on GNSS Radio Occultation Measurements Over the Subtropical Eastern Ocean
- Additional Research focus: Assessing the impact of intense lightning storms and electrified shower clouds on the ionosphere using observations from the COSMIC constellation and TRMM Satellite

Jet Propulsion Laboratory (NASA/California Institute of Technology)-Pasadena, CA

Summer Internship Program (June 2016–August 2016)-Mentor: Dr. Chi Ao

- Project Title: Planetary Boundary Layer Height from GPS Radio Occultation: Creating a 2-D atmospheric model and the evaluation of the impact of horizontal inhomogeneity of the PBL on GPS RO across the Northeastern Pacific Ocean

University of Hawai'i-Mānoa-Honolulu, HI

Graduate Research Assistant (August 2012–August 2014)-Advisor: Dr. Yi-Leng Chen

- Thesis Title: Detection of the Inversion Layer over the Central North Pacific Ocean using GPS Radio Occultation

Oklahoma Climatological Survey-Norman, OK

Undergraduate Research Assistant (May 2006–May 2009)-Supervisor: Dr. Jeff Basara

Oklahoma City Urban Micronet (OKCNET)

- Performed programming, wiring, and sensor preparation for initial intercomparison
- Assisted with construction of sensor intercomparison facility
- Responsible for facility maintenance, technical troubleshooting and security of collected data throughout the entirety of the intercomparison period
- Responsible for initial organization and QA of raw data for long-term precipitation sensor intercomparison study
- Involved in sensor mapping after initial station sites were selected
- Authored manuscript titled: “An Overview of the Oklahoma City Urban Micronet: Transitioning from a Vision to a Reality”

Portable Automated Research Micrometeorological Stations (PARMS)

- Constructed, deployed, and maintained portable weather research stations for the Tar Creek Superfund Site located in Picher, OK
- Performed routine site maintenance as well as data, hardware and sensor upgrades on all stations

Oklahoma Mesonet Intercomparison

- Independently executed on site, in-situ intercomparison tests ensuring data reliability for all 120 Oklahoma Mesonet stations during a three month period
- Submitted test results upon completion of each pass
- Updated site information and reported any variation in site performance or functionality
- Assisted with seasonal site passes and station power box upgrades

Publications

Winning, T.E., Chen, Y.-L., Xie, F., 2017: Estimation of the Marine Boundary Layer Height over the Central North Pacific Using GPS Radio Occultation. *Atmospheric Research*,183, 362-370.
doi: 10.1016/j.atmosres.2016.08.005

Basara J.B., Illston B.G., **Winning Jr., T.E.**, and Fiebrich C.A., 2009: Evaluation of Rainfall Measurements from the WXT510 Sensor for Use in the Oklahoma City Micronet. *The Open Atmospheric Science Journal*, 3, 39-47.

Presentations

Winning, T., F. Xie, K.-N. Wang, C. Ao, 2021: Quantification of Horizontal Inhomogeneity in the Planetary Boundary Layer and its Impact on GNSS Radio Occultation Measurements. Presented at: The 8th International Radio Occultation Working Group Meeting-IROWG-8. April 7-9, 12-13, 2021. Virtual

Xie, F., **T. Winning**, C. Ao, K.-N. Wang, and L. Adhikari, 2019: Satellite Sensing the Horizontal Inhomogeneity of the Cloudy Planetary Boundary Layer over the Subtropical Eastern Pacific Ocean. Presentation (F. Xie) at: 100th American Geophysical Union Conference- G14-A Advancing Earth Science Research Using Global Navigation Satellite Systems I. December 9-13, 2019. San Francisco, CA.

Winning, T., F. Xie and C. Liu, 2018: An Assessment of the Impact of Thunderstorms on the Ionosphere Using Observations from the COSMIC Constellation and TRMM Satellite. Poster presented at: The 98th Annual American Meteorological Society Conference-15th Conference on Space Weather. January 7-11, 2018, Austin, TX.

Winning, T., C. Ao and F. Xie, 2017: Evaluating the Impact of Horizontal Inhomogeneity of the PBL on GPS RO Across the Northeastern Pacific Ocean. Poster presented at: The Joint COSMIC Tenth Data User Workshop and IROWG-6 Meeting. September 21-27, 2017, Estes Park, CO.

Xie, F., T.L. Kubar, L. Adhikari, **T. Winning**, and C.O. Ao, 2016: Cloudy Planetary Boundary Layer Study with Satellite, Climate Model, and ERA-I Reanalysis Data over the Subtropical Eastern Pacific. Poster presented (F. Xie) at: 97th American Geophysical Union Conference- A43B Boundary Layer Clouds and Climate Change II Posters. December 12-16, 2016, San Francisco, CA.

Adhikari, L., F. Xie, **T. Winning**, 2015: Spatial and Temporal Variation of Boundary Layer Lapse Rate and Cloud-top-height Observed from MODIS, CALIPSO and AMSR-E over Eastern Pacific. Poster presented (L. Adhikari) at: 96th American Geophysical Union Conference-A51I: Marine Boundary Layer Clouds and Aerosols: Observations and Process Modeling I Posters. December 14-18, 2015, San Francisco, CA.,

Winning, T., Y.-L. Chen, D. Hitzl, F. Hsaio, Y.F. Huang, F. Xie, 2014: Detection of the Inversion Layer over the central North Pacific Ocean using GPS Radio Occultation. Poster presented at: Eighth FORMOSAT-3/COSMIC Data Users' Workshop. September 30-October 2, 2014. Boulder, CO.

Winning Jr., T.E., Illston B.G., Ferris, M.M., and Basara J.B., 2006: An Overview of the Oklahoma City Urban Micronet Test Facility. Poster and Presentation at: 87th annual American Meteorological Society Conference January 7-11, 2007, San Antonio, TX)

Non-Research Employment

Hawaiian Island Homes Ltd.-Honolulu, HI: March 2014–August 2014

Resident Advisor-Beachwalk Student Suites Community

- Responsible for resident check in and check out procedures
- Enforcement of community rules and regulations when necessary
- First responder in the event of an emergency or other community related issues including repair, maintenance and property appearance
- Bi-monthly on-call duties including overnight security, lock-outs, and property tours

Gross Lumber Company-Carlisle, OH: September 2009–July 2012

Warehouse Customer Service Representative

- Assisted customers with walk in orders and selection of acceptable products
- Evaluated and organize lumber and other products to provide a quality product for delivery orders purchased sight unseen
- Maintained Gross Lumber Company's reputation as a first class, knowledgeable, customer service oriented business
- Front Counter Customer Service Representative
 - Utilize/gain new knowledge to help customers locate desired products
 - Provided customers with assistance on completion of D.I.Y. projects
 - Referred customers to appropriate resources in order to achieve customer satisfaction and quality service
 - Assist in coordination of delivery orders
 - Responsible for regular communication with local customers to ensure all of their needs are fulfilled
 - Involved in marketing strategy meetings to promote business to prospective customers

General Engine Products-Franklin, OH: October 2003–May 2004

Fuel Line and Trim Line Technician

- Initialized fuel line fabrication process via assembly and installation of primary components
- Responsible for ensuring first time out quality of completed products following initial start-up test
- Performed replacement service for parts that fail initial test and QA of replaced parts after retest

Alliance Data Systems-Gahanna, OH: June 2001–August 2001

Student Intern

- Served as a resource on product promotions that required research and data analysis as a member of Database Query and Analysis teams
- Performed primary quality control of core reports from past promotions to determine their level of profitability

Jackson Township Joint Park District: Farmersville, OH - April–October (1995–2004)

Head Lifeguard/Assistant Manager/Manager

- Coordinated pool opening, closing, scheduling, supervision of guards, and maintenance during daily operation
- Responsible for reconciliation of cash receipts and daily reporting of pool activities
- Maintained positive working relationships with Park Board members as well as Village and Township officials relative to the pool operation and improvement initiatives
- Independently established management reporting in order to submit recommendations to Park Board regarding policy changes, price adjustments, and vendor selection

Awards

- Texas A&M University-Corpus Christi Coastal and Marine Systems Science R.A. research support grant (Fall 2021)
- Texas A&M University-Corpus Christi Coastal and Marine Systems Science R.A. research support grant (Spring 2021)
- Texas A&M University-Corpus Christi Coastal and Marine Systems Science R.A. research support grant (Fall 2020)
- Texas A&M University-Corpus Christi Coastal and Marine Systems Science R.A. research support grant (Summer 2020)
- Texas A&M University-Corpus Christi Coastal and Marine Systems Science R.A. research support grant (Spring 2020)
- Texas A&M University-Corpus Christi Coastal and Marine Systems Science R.A. research support grant (Summer 2019).
- Texas A&M University-Corpus Christi Coastal and Marine Systems Science R.A. research support grant (Spring 2019).
- Texas A&M University-Corpus Christi Coastal and Marine Systems Science R.A. research support grant (Summer 2018).
- Texas A&M University-Corpus Christi Coastal and Marine Systems Science student travel award (January 2018)
- Texas A&M University-Corpus Christi Parents' Council travel award for 98th American Meteorological Society Annual Conference (January 2018)
- Student travel support for 10th FORMOSAT-3/COSMIC Data Users' Workshop and 6th International Radio Occultation Working Group (IROWG-6) 2017 Student Program. (September 2017)
- Student travel support for 8th FORMOSAT-3/COSMIC Data Users' Workshop 2014 Student Program. (September 2014)

University Service

- Volunteer 27th International Conference on Supersymmetry and Unification of Fundamental Interactions (SUSY)
 - May 19, 2019
- Volunteer American Physical Society Conference for Undergraduate Women in Physics at Texas A&M University-Corpus Christi
 - January 18-20, 2019
- Outreach representative for BS-Atmospheric Science program
 - Sinton High School Career Day (January 2018, 2019)
 - Island Days (April 2018-most recent)
 - Savannah Elementary School Science Night (October 2017)
- Passport to the Island-Summer Major Fair (June 12, June 29, July 30, 2018)
- Islander Launch-CMSS presentation (June 12, June 29, 2018)
- Volunteer, XIth International Conference Between Particle Physics and Cosmology (May 2017)
- University of Hawai'i-Mānoa Science Day-October 2013