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Curriculum Vitae

Name: *Fei Zhang*

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Education and Training

Undergraduate

1. Bachelor of Ocean Engineering Degree 1997~2001
   TianJin University, P. R. China
2. Bachelor of Science in Nursing 2010~2011
   University of Miami

Graduate

1. Master of Science, Applied Marine Physics 2002~2005
   University of Miami
2. Ph.D , Applied Marine Physics 2005~2008
   University of Miami
3. Master of Science, Nurse Anesthesia 2012~2014
   University of Miami

Appointments and Positions

Academic

1. University of Miami 2009~2010
   Post-Doctoral Research Fellow
2. University of Pittsburgh 07/2019~now
   Assistant Professor

Non-Academic

1. Jackson Memorial Hospital 2011~2012
   Staff Nurse, Surgical Intensive Care Unit
2. University of Pittsburgh Medical Center (UPMC) 02/2015~now
   Certified Registered Nurse Anesthetist

Membership in Professional and Scientific Societies

2012-	Member, American Association of Nurse Anesthetists
2017-	Member, Healthcare Information and Management System Society (HIMSS)
2020-	Editorial Boards, AANA Journal

Publications

Refereed Articles * = Data Based

1. * **Zhang, F**, W.M. Drennan, B.H. Haus, H.C. Graber: On the Current-Wave-Wind Interaction in the Shoaling Wave Experiment. *J. Geophys. Res.*, 114,C01018.
2. *Högström, U., A. Smedman, E. Sahleé, W. M. Drennan, K. K. Kahma, H. Pettersson, **Zhang,F**, 2009: The Atmospheric Boundary Layer during Swell: A Field Study and Interpretation of the Turbulent Kinetic Energy Budget for High Wave Ages. *J. Atmos. Sci.*, 66, 2764–2779.
3. *Smedman, A., U. Högström, E. Sahleé, W. M. Drennan, K. K. Kahma, H. Pettersson, **Zhang,F**, 2009: Observational Study of Marine Atmospheric Boundary Layer Characteristics during Swell. *J. Atmos. Sci.*, 66, 2747–2763.
4. ***** Li, D., Mathews, C, & **Zhang, F** (2018) The characteristics of pressure injury photographs from the electronic health record in clinical settings. Journal of Clinical Nursing, 27(3-4), 819-828. 10.1111/jocn.14124
5. * Li, D., Henker, R., & **Zhang, F**. (2019). Perianesthesia Measurement During Cytoreductive Surgery and Hyperthermic Intraperitoneal Chemotherapy Procedure: A Case Report and Review of the Literature. Journal of PeriAnesthesia Nursing, 34(1), 198-205.
6. * Li, D., Huang, S., **Zhang, F**., Ball, R. D., & Huang, H. (2021). Perianesthesia Care of the Oncologic Patient Undergoing Cytoreductive Surgery with Hyperthermic Intraperitoneal Chemotherapy: A Retrospective Study. *Journal of perianesthesia nursing : official journal of the American Society of PeriAnesthesia Nurses*, *36*(5), 543–552.
7. ***** Li, D., Mathews, C., Zamarripa, C., **Zhang, F**., & Xiao, Q. (2022). A Pilot Study for Wound Tissue Segmentation by Computerized Image Analysis from Clinical Pressure Injury Photographs. *Journal of wound care.* In press
8. ***Zhang, F.,** Huang, S., Li, D., Huang, H., O'Donnell, J. (2022). Anesthesia Management For Cytoreductive Surgery And Hyperthermic Intraperitoneal Chemotherapy Surgery On Short-Term Patient Outcomes. AANA Journal. In press.

Presentation

1. **Zhang, F**. (2006). Wave-Current-Wind Interaction during Shoaling Wave Experiment. Oral session presented at Ocean Science conference, American Geophysical Union, Honolulu, Hawaii.
2. **Zhang, F**. (2008). On the Current-Wave-Wind Interaction in the Shoaling Wave Experiment. Oral session presented at Ocean Science, American Geophysical Union, Orlando, FL.
3. **Zhang, F.,** Li, D., Whitehurst, S., & Mahajan, A. (2022). Implementation of a High-Fidelity Intraoperative Data Acquisition System in Operating Rooms for Anesthesia-Related Research. IARS AUA SOCCA annual meeting 2022

Teaching

NURSAN 3752 - TEAM TRAINING IN PATIENT SAFTEY IN ANESTHESIA
NURSAN 3787 - BASIC PRINCIPLES OF ANESTHESIA LAB
NURSAN 3806 - TRANSITION TO CLINICAL PRACTICE LAB

Research

Pending Research Support

NIH R01 Milos Hauskrecht (PI) 2022-2026
Title of Grant: Learning alerting models for clinical care from EMR data and human knowledge
Role： CO-PI (15% effort)

NIH R01 Dan Li (PI) 2022-2027
Title of Grant: A Data-Driven Expert System to Achieve Anesthetist-Level Intraoperative Management through Deep Reinforcement Learning
Role： CO-PI (10% effort)

Ongoing Research Support

NIH NIGMS K08 Fei Zhang (PI) 4/1/2021 - 3/31/2025
Title of Grant: Synthesizing Intraoperative Multivariate Time Series with Conditional Generative Adversarial Networks ($768,761)
Mentor: Aman Mahajan, Heng Huang, Jacqueline Dunbar-Jacob , Oscar C. Marroquin
Total Amount of Award: *$768,761, PI with 80% efforts, Funded*

NSF-IIS 1838627 Heng Huang (PI) 10/1/2018 - 9/30/2022
SCH: INT: New Machine Learning Framework to Conduct Anesthesia Risk Stratification and Decision Support for Precision Health
Total Amount of Award: *$1,182,305, CO-PI with 15% efforts, Funded*

Completed Research Support

Center for Research and Evaluation Pilot Funding Fei Zhang (PI) 01/01/2020-06/30/2021
University of Pittsburgh
Title of Grant: Applying Real-Time Analytics to High-Resolution Peri-Operative Data among Non-Cardiac Thoracic Surgery Patients: Intraoperative Risk Assessment through Deep-Learning Methodology
Total Amount of Award: *$18,000, PI with 25% efforts, Funded*

University Research Council CRDF Dan Li (PI) 07/01/2016-06/30/2018
Title of Grant: Predictive Modeling for Anesthesia Outcomes of Cytoreductive Surgery with Hyperthermic Intraperitoneal Chemotherapy (CHS+HIPEC) from Electronic Health Record via Machine Learning Algorithms
Total Amount of Award: *$20,000, CO-PI with 10% efforts, Funded*