

Tianyu (Bell) Pan

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EDUCATION

University of Florida, PhD – Electrical & Computer Engineering

Lab: Florida Institute of National Security (FINS) & Applied Artificial Intelligence Group (AAIG)

Gainesville, FL

GPA: 3.77 (4.0)

Expected Graduate: Summer 2026

Committee: Damon L. Woodard, Domenic Forte, Janise McNair, Bonnie Dorr

University of Florida, MS – Electrical & Computer Engineering

Gainesville, FL 2026

GPA: 3.77 (4.0)

University of Florida, Graduate Certificate – Machine Learning (ECE)

Gainesville, FL 2025

University of Florida, MA – Economics

Specialize: Industrial Organization, Financial Economics

Gainesville, FL 2024

GPA: 3.77 (4.0)

EMPLOYMENT

University of Florida (UF)

Instructor/Graduate Assistant

2022 – Present

Florida International University (FIU)

Adjunct Instructor

2020

Coca-Cola Professorship Research Assistant

2019 – 2020

SELECTED WORK

1. **Pan, T.,** Hao, Z., Woodard, D. (2026). Directional Faithfulness in Learned Discretization for Geometric Representation Learning. *Under Review*.
2. **Pan, T.,** Hao, Z., Woodard, D. (2026). From Data Fusion to Foundation Models: A Survey of Multimodal AI in Medicine and Healthcare. *Under Review*. Available Online.
3. **Pan, T.,** Woodard, D. (2026). GeoLAN: Geometric Learning of Latent Explanatory Directions in Large Language Models. *The 64th Annual Meeting of the Association for Computational Linguistics (ACL 2026)*.

4. **Pan, T.**, Dizon-Paradis, O., Woodard, D. (2026). Multimodal Co-Training with Subtractive Unlabeled-Benefit Bounds. *IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP 2026)*.
5. **Pan, T.**, Yang, Q., Cole, A.J., Wilson, R., Woodard, D. (2026). Psychology of Phishing Emails: Quantifying Persuasion Principles and Simulating Detection with Large Language Models. *Expert Systems with Applications, 131507*.
6. **Pan, T.**, Wormald, S., Woodard, D. (2026). From Kakeya to Kernels: A Multi-Scale Geometric Framework for Robust Representation Learning. *Under Review*. Available Online.
7. Wormald, S., **Pan, T.**, Woodard, D., Forte, D. (2026). Exploring weightless neural networks: From logic gates to convolutional lookup tables. *Under Review*. Available Online.
8. **Pan, T.**, Shal-bar, T., Azis, B., Forte, D., Woodard, D. (2026). PHBF: A Persistent Hierarchical Bloom Filter for Semantic Search in High-Dimensional Streaming Data. *Under Review*.
9. **Pan, T.**, Bhandarkar, A.C., Cole, A.J., Wilson, R., Woodard, D. (2026). ViLID: Unmasking Multimodal Misinformation via Rationale-Enhanced Inconsistency Detection. *Under Review*.
10. Lin, W., **Pan, T.**, Woodard, D. (2026). The Gameplay-Ad Gap Index (GAGI): Quantifying Deceptive Discrepancies in Mobile Game Advertising via Multimodal Analysis. *Under Review*.
11. **Pan, T.**, Zhu, M., Cole, A.J., Wilson, R., Woodard, D. (2025). Lyapunov-Stable Adaptive Control for Multimodal Concept Drift. *39th Conference on Neural Information Processing Systems (NeurIPS 2025)*.
12. **Pan, T.**, & Woodard, D. L. (2025). Efficient Generalization via Multimodal Co-Training under Data Scarcity and Distribution Shift. *The 42nd ICML Conference Affinity Workshop New In ML*.
13. Jia, S., **Pan, T.**, Shan, G. (2025, August). Insiders Take Longer, Retail Hits Harder: Organizational Predictors of Data Breach Outcomes. In *Proceedings of 59th Annual Hawaii International Conference on System Science (HICSS)*.
14. Swarup, A., Bhandarkar, A., Wilson, R., **Pan, T.**, & Woodard, D. (2025, August). From Syntax to Semantics: Evaluating the Impact of Linguistic Structures on LLM-Based Information Extraction. In *Proceedings of the 1st Joint Workshop on Large Language Models and Structure Modeling (XLLM 2025)* (pp. 36-48).
15. Swarup, A., **Pan, T.**, Wilson, R., Bhandarkar, A., & Woodard, D. (2025, January). LLM4RE: A Data-centric Feasibility Study for Relation Extraction. In *Proceedings of the 31st International Conference on Computational Linguistics (COLING)* (pp. 6670-6691).
16. Yang, Q., **Pan, T.**, Cole, A.J., Wilson, R., Woodard, D. (2025). Accuracy, Feature Interpretability, and Usability of LLMs in Phishing Email Detection. *Under Review*. Available Online.

PATENT

1. Woodard, D., Forte, D., **Pan, T.** (2026). Cognitive Embedded Real-Time Evaluation and Behavioral-Recognition Observer (CEREBRO): A Multimodal Remote Side-Channel Monitoring System with On-

Device AI Inference, Secure Communication, Adaptive Sampling, and Lyapunov-Stable Adaptive Fusion Control for Real-Time Attack Detection, Predictive Maintenance, and Dynamic Threat Response. (**Status:** Provisional).

2. Woodard, D., **Pan, T.** (2025). Lyapunov-Stable Control for Multimodal Learning System Adaptation to Concept Drift. (**Status:** Provisional).
3. Woodard, D., **Pan, T.** (2025). MACO: Multimodal Agreement-Aware Co-Training with Dual-Threshold Pseudo-Labeling, Geometric Convergence, and Generalization Guarantees. (**Status:** Provisional).
4. Woodard, D., **Pan, T.**, Forte, D. (2025). Multimodal Retrieval-Augmented Generation System for Creative Production (MuseRAG): Cross-Modal Indexing, Generative Retrieval/Re-Ranking, and Attributed Output. (**Status:** Provisional).

BOOK CHAPTER

1. Dizon-Paradis, O., Capecci, D., **Pan, T.**, Fu, RJC., Woodard, D. (2024). Machine Learning in Marketing Research: A Case Study of Cruise Tourism. *AI, ML, ROBOT APPLICATIONS IN HOSPITALITY BUSINESSES*. ISBN: 979-8-7657-8381-8.
2. **Pan, T.**, Fu, RJC. (2024). Seasonal Time Series Forecasting in the Hospitality Industry: A Novel Model of Data Decomposition with Machine Learning. *AI, ML, ROBOT APPLICATIONS IN HOSPITALITY BUSINESSES*. ISBN: 979-8-7657-8381-8.

GRANTED PROJECT

1. Woodard, D. (PI), Bursztein, E. (Co-PI), **Pan, T. (Co-PI)**. (2024). SaTC: CORE: Small: GOALI: Predicting and Labeling Email Phishing from Social Influence Cues and User Characteristics. *National Science Foundation (NSF), US*.
Awarded: \$500,000

* *More experience with government grant and funding applications can be shared upon request.*

ACADEMIC HONORS AND AWARDS

Herman W. Schnell Memorial Endowed Scholarship and Fellowship, UF	2024
EFTI Selected White Paper Travel Fund, UF	2023
Dr. Linda Thornton Endowed Scholarship, UF	2023
Certificate of Outstanding Merit, UF	2022
EFTI's Gefen Innovation Research Award, UF	2021 – 2022
Coca-Cola Professorship Research Assistant Award, FIU	2020 – 2021
South Beach Wine and Food Festival Scholarship Award, FIU	2018 – 2019
<i>WorldsAhead (President)</i> Award, FIU	2019
Dean's List Award, FIU	2017 – 2019
Teaching/Research Assistant Scholarship Award, FIU	2018 – 2019

COURSE TEACHING

University of Florida

EEE 6512/EEE4930 Image Processing and Computer Vision (Spring, 2026)

TA & Co-instructor

Updated in May 2026

EEE 6825 Pattern Recognition and Intelligent Systems (Fall, 2025)
EEE 6512 Image Processing and Computer Vision (Spring, 2025)

TA & Co-instructor
TA & Co-instructor

PROFESSIONAL AND COMMUNITY SERVICES

NeurIPS Conference 2026 <i>Reviewer</i>	2026
ICML Conference 2026 <i>Reviewer</i>	2026
AAAI Conference on Web and Social Media (ICWSM) 2026 <i>Reviewer</i>	2026
AAAI Conference 2026 <i>Reviewer</i>	2025
IEEE International Conference on Automatic Face and Gesture Recognition <i>Reviewer</i>	2024 – Present
Scientific Reports – Nature <i>Reviewer</i>	2024 – Present

PROFESSIONAL MEMBERSHIPS

ACL – Association for Computational Linguistics
ACM – Association for Computing Machinery
IEEE – Institute of Electrical and Electronics Engineers
INFORM – The Institute for Operations Research and the Management Sciences

- Decision Analysis Society
- Analytics Society
- Computing Society

ASQ – American Society of Quality
AAAS – American Association for the Advancement of Science

ADDITIONAL INFORMATION

Language: Chinese (Native), Cantonese (Native), English (Advanced)

Software Skills:

Latex, Python, R, MATLAB, SPSS, AMOS, SAS, Linux, Canvas, Slurm, Cloud Computing, Microsoft Office