

# Hieu T. Pham

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Curriculum Vitae  
September 27, 2026

## Academic Experience

|                                                                                                                                                        |                                                     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Assistant Professor of Management Science</b><br><i>The University of Alabama in Huntsville</i><br>Information Systems, Supply Chain, and Analytics | <b>2021 – Present</b><br><i>College of Business</i> |
| <b>Graduate Research/Teaching Assistant</b><br><i>Iowa State University</i><br>Industrial and Manufacturing Systems Engineering                        | <b>2016 – 2018</b>                                  |
| <b>Graduate Teaching Assistant</b><br><i>Kansas State University</i><br>Mathematics                                                                    | <b>2014 – 2016</b>                                  |

## Industry Experience

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|-----------------------------------------------------------|--------------------|
| <b>Machine Learning Engineer</b><br><i>Syngenta Group</i> | <b>2020 – 2021</b> |
| <b>Research Data Scientist</b><br><i>Syngenta Group</i>   | <b>2018 – 2020</b> |
| <b>Data Scientist</b><br><i>Omni Analytics Group</i>      | <b>2017 – 2018</b> |

## Education

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|---------------------------------------------------------------------------------------------------------|-------------|
| <b>Ph.D. Industrial Engineering - Operations Research and Analytics</b><br><i>Iowa State University</i> | <b>2018</b> |
| <b>M.S. Mathematics</b><br><i>Kansas State University</i>                                               | <b>2015</b> |
| <b>B.S. Mathematics</b><br><i>Tennessee Technological University</i>                                    | <b>2014</b> |

## Publications

### Journal Articles

1. Can, E., Lyu, K., Pham, H., & Yang, J. (2026). The effect of the Kansas tax reform on self-employment hours worked. *International Tax and Public Finance*. 1-15. (ABDC Rank: A).
2. Pham, H., Arwade, G., Tan, Y., Bhatt, P., & Pavlopoulos, V. (2026). Training data optimization for classification via weighted dimensional reduction and adaptive stratified clustering for balanced and imbalanced data. *Journal of Classification*, 43, 382-401.
3. Tan, Y., Orman, W., Pavlopoulos, V., Pham, H., & Patnayakuni, R. (2026). Transforming student data into timely interventions: A dynamic Bayesian network decision support system. *International Journal of*

*Knowledge Management*, 22(1), 1-27. (ABDC Rank: B).

4. Pham, H., Pavlopoulos, V., Patnayakuni, R., Verderbar, S., & Bliss, K. (2026). The hidden keywords: An algorithmic approach to uncovering the value of negative keywords in search advertising. *Decision Sciences*, 57(2), 117-132. (ABDC Rank: A\*).
5. Bhatt, P., Singh, T., Pavlopoulos, V., & Pham, H. (2025). Decoding sentiments: Unveiling AI-generated content through sentiment analysis and human evaluation. *Journal of Global Information Management*, 33(1), 1-32. (ABDC Rank: A).
6. Tettey, A., Pham, H., Chen, H., Dongsheng, W., & Wooley, A. (2025). A decision support framework for electric demand planning in distribution systems during extreme minimum temperatures. *Energy Reports*, 14, 1137-1148.
7. Pham, H., Bhatt, P., Pavlopoulos, V., Tan, Y., & Patnayakuni, R. (2025). A comparative study of convolutional neural networks and vision transformers for agricultural image classification. *Journal of Database Management*, 36(1), 1-27. (ABDC Rank: A).
8. Wallach, K., Pham, H., Koschmann, A., & Arwade, G. (2025). Analyzing the impact of faces on consumer engagement in branded social media videos: A machine learning approach. *Journal of Consumer Marketing*, 42(3), 318-335. (ABDC Rank: A).
9. Wood, K., Pyun, C., & Pham, H. (2025). Beyond green labels: Assessing mutual funds' ESG commitments through large language models. *Finance Research Letters*, 74, 106713. (ABDC Rank: A).
10. Pham, H., Tan, Y., Singh, T., Pavlopoulos, V., & Patnayakuni, R. (2024). A multi-head attention-like feature selection approach for tabular data. *Knowledge-Based Systems*, 301, 112250. (ABDC Rank: A).
11. Khaki, S., Safaei, N., Pham, H., & Wang, L. (2022). Wheatnet: A lightweight convolutional neural network for high-throughput image-based wheat head detection and counting. *Neurocomputing*, 489, 78-89.
12. Moeinizade, S., Pham, H., Han, Y., Dobbels, A., & Hu, G. (2022). An applied deep learning approach for estimating soybean relative maturity from UAV imagery to aid plant breeding decisions. *Machine Learning with Applications*, 7, 100233.
13. Pham, H., Reisner, J., Swift, A., Olafsson, S., & Vardeman, S. (2022). Crop phenotype prediction using biclustering to explain genotype-by-environment interactions. *Frontiers in Plant Science*, 13, 975976.
14. Mosley, L., Pham, H., Guo, X., Bansal, Y., Hare, E., & Antony, N. (2022). Towards a systematic understanding of blockchain governance in proposal voting: A dash case study. *Blockchain: Research and Applications*, 3(3), 100085.
15. Khaki, S., Pham, H., Khalilzadeh, Z., Masoud, Z., Safaei, N., Han, Y., Kent, W., & Wang, L. (2022). High-throughput image-based plant stand count estimation using convolutional neural networks. *PLOS One*, 17(7), e0268762.
16. Shahhosseini, M., Hu, G., & Pham, H. (2022). Optimizing ensemble weights and hyperparameters of machine learning models for regression problems. *Machine Learning with Applications*, 100251.
17. Khaki, S., Pham, H., & Wang, L. (2021). Simultaneous corn and soybean yield prediction from remote sensing data using deep transfer learning. *Scientific Reports*, 11(1), 1-14.
18. Han, Y., Cameron, J., Wang, L., Pham, H., & Beavis, W. (2021). Dynamic programming for resource allocation in multi-allelic trait introgression. *Frontiers in Plant Science*, 12, 1181.
19. Khaki, S., Pham, H., Han, Y., Kuhl, A., Kent, W., & Wang, L. (2021). DeepCorn: A semi-supervised deep learning method for high-throughput image-based corn kernel counting and yield estimation. *Knowledge-Based Systems*, 106874. (ABDC Rank: A).
20. Moeinizade, S., Han, Y., Pham, H., Hu, G., & Wang, L. (2021). A look-ahead Monte Carlo simulation method for improving parental selection in trait introgression. *Scientific Reports*, 11, 3918.

21. Pham, H., & Olafsson, S. (2020). On Cesàro averages for weighted trees in the random forest. *Journal of Classification*, 37, 223–236.
22. Li, J., Reisner, J., Pham, H., Olafsson, S., & Vardeman, S. (2020). Biclustering with missing data. *Information Sciences*, 510, 304–316.
23. Khaki, S., Pham, H., Han, Y., Kuhl, A., Kent, W., & Wang, L. (2020). Convolutional neural networks for image-based corn kernel detection and counting. *Sensors*, 20, 2721.
24. Pham, H., & Olafsson, S. (2019). Bagged ensembles with tunable parameters. *Computational Intelligence*, 35, 184–203.
25. Reisner, J., Pham, H., Olafsson, S., & Vardeman, S. (2019). biclustermd: An R package for biclustering with missing values. *The R Journal*, 11(2), 69–84.

### **Revise and Resubmit**

- Pavlopoulos, P., Killick, R., Can, E., Pham, H., & Bhatt, R. Forecasting seasonal changepoint models utilizing changepoint uncertainties. Manuscript submitted for publication in *International Journal of Forecasting*. (ABDC Rank: A).
- Shen, W., Lee, C., & Pham, H. Breaking the bank – exploring the quality and perceptual bias of AI-generated vs. publisher test bank questions in accounting education. Manuscript submitted for publication in *Issues in Accounting Education*. (ABDC Rank: A).
- Tettey, A., Pham, H., Can, E., Schrimpscher, V., & Wooley, A. A two-stage predictive-prescriptive framework for utility-scale battery energy storage systems peak shaving. Manuscript submitted for publication in *Computers & Industrial Engineering*. (ABDC Rank: A).

### **Submitted**

- Bhatt, P., Akanfe, O., Thompson, S., & Pham, H. Who is responsible? Disciplinary tradition, not delegation structure, determines how AI security research attributes responsibility. Manuscript submitted for publication in *Journal of Strategic Information Systems*.
- Wallach, K., Mosley, B., & Pham, H. Influencing from the inside: The role of brand-compensatory fit on owned social media. Manuscript submitted for publication in *Journal of Business Research*.
- Schrimpscher V., Pham, H., Paynayakuni R., Tettey, A., & Wooley, A. Reconstructing antifragility for supply chain research: A mechanism-based framework and systematic review. Manuscript submitted for publication in *Supply Chain Management: an International Journal*.
- Schrimpscher V., Pham, H. & Wooley, A. A hybrid OR–AI framework for adaptive supply chain decision-making under disruption. Manuscript submitted for publication in *Computers & Industrial Engineering*.

### **In Preparation**

- Schrimpscher, V., Pham, H., Yildizbasi, A., & Wooley, A. Strategic antifragile architectures for autonomous supply chain systems: A framework for volatility governance.
- Schrimpscher, V., Pham, H., & Wooley, A. Distinguishing improvement from antifragility: A simulation-based diagnostic approach for supply chain value generation under volatility.
- Pavlopoulos, V., Pham, H., & Paynayakuni R., Calibrated escalation in production agent workflows: Evidence from a small online retailer.
- Pavlopoulos, V., Gupta, J., & Pham, H., Dividing pricing decisions between algorithm and manager.

## **Peer-Reviewed Conference Proceedings and Presentations**

- Pham, H., Tettey, A., Can, E., and Wooley, A. (2026). *A Predictive-Prescriptive Framework for Utility-Scale BESS Operations and Maintenance Decision-Making*, INFORMS Conference on Quality, Statistics, and Reliability, Hong Kong, China.

- Pavlopoulos, V., Killick, R., Can, E., Pham, H., & Bhatt, P. (2025). *Forecasting Seasonal Changepoint Models Utilizing Changepoint Uncertainties*, INFORMS Annual Meeting, Atlanta, GA.
- Tan, Y., Lu, Y., Wang, L., & Pham, H. (2025). *Flight Delay Dynamics: Unraveling the Impact of Airport-Network-Spilled Propagation on Airline on-time Performance*, INFORMS Annual Meeting, Atlanta, GA.
- Schrimpscher, V. A., Pham, H., Wooley, A., Gholston, S., & Tettey, A. (2025). *Tracking the unseen: autonomous multi-object motion analysis in complex environments*, North American Conference on Industrial Engineering and Operations Management-Computer Science Tracks (pp. 99-113). Cham: Springer Nature Switzerland.
- Schrimpscher, V. A., Pham, H., Wooley, A., Gholston, S., & Tettey, A. (2025). *Bridging the black box: data mining enhanced machine learning interpretability for exoplanet discovery*, North American Conference on Industrial Engineering and Operations Management-Computer Science Tracks (pp. 255-270). Cham: Springer Nature Switzerland.
- Pham, H. (2025). *An algorithmic approach to uncovering the value of negative keywords in search advertising*, Iowa State University IMSE Graduate Student Seminar, Ames, Iowa.
- Gholston, S., Loyd, N., Pham, H., & St. John, C. (2024). *Review of the new Baldrige organizational assessment process*, American Society for Engineering Management, Virginia Beach, VA.
- Schrimpscher, V., Pham, H., Gholston, S., Wooley, A., & Tettey, A. (2024). *A review of research on supply chain antifragility: Unveiling enablers for resilience enhancement*, American Society for Engineering Management, Virginia Beach, VA.
- Hudson, M., Pham, H., Tan, Y., & Wooley, A. (2024). *Large language models to improve defense acquisition*, INFORMS Annual Meeting, Seattle, WA.
- Pham, H., Pavlopoulos, V., & Patnayakuni, R. (2024). *Reducing search advertisement spending through a two-stage term embedding and optimization approach*, INFORMS Annual Meeting, Seattle, WA.
- Patnayakuni, R., Pham, H., & Shen, M. (2024). *From content to quiz: Using AI to simplify assessment question development*, TRED Talk, SAP Academic Community Conference North America and ERPsim User Group Meeting, Montreal, Canada.
- Mwanza, C., & Pham, H. (2024). *Graph neural networks for Ethereum fraud detection*, IISE Annual Conference and Expo, Montreal, Canada.
- Pham, H., Taufeeq, M., Gholston, S., & Mahalingam, S. (2024). *Using machine learning to analyze hospital admissions*, IISE Annual Conference and Expo, Montreal, Canada.
- Pham, H. (2023). *A biclustering approach to phenotype prediction*, INFORMS Annual Meeting, Phoenix, AZ.
- Wallach, K., Pham, H., Koschmann, A., & Arwade, G. (2023). *Face size and user engagement in social media videos: A machine learning approach*, American Marketing Association Conference, Nashville, TN.
- Mosley, L., Pham, H., Bansal, Y., Hare, E., & Mwanza, C. (2023). *Image-based sorghum head counting when you only look once*, Proceedings of the 56th Hawaii International Conference on System Sciences, Maui, HI.
- Pham, H. (2022). *Towards a systematic understanding of blockchain governance in proposal voting: A dash case study*, INFORMS Annual Meeting, Indianapolis, IN.
- Moeinizade, S., Han, Y., Pham, H., Hu, G., & Wang, L. (2020). *A look-ahead Monte Carlo simulation method for improving parental selection in trait introgression*, INFORMS Annual Virtual Meeting.
- Khaki, S., Pham, H., Han, Y., Kuhl, A., Kent, W., & Wang, L. (2020). *Convolutional neural networks for image-based corn kernel detection and counting*, 2020 CVPR: The 1st International Workshop and Prize Challenge on Agriculture-Vision: Challenges & Opportunities for Computer Vision in Agriculture.

- Almeda-Basora, E., & Pham, H. (2019). *A sequentially updating Bayesian network that bests the oddsmakers by predicting the total number of points scored in NBA games*, Midwest Sports Analytics Meeting, Pella, IA.
- Pham, H. (2019). *Genetics by environment interaction*, INFORMS Student Chapter at Iowa State University, Ames, IA.
- Han, Y., & Pham, H. (2019). *Data analytics in agricultural business*, 2nd Midwest Statistical Machine Learning Colloquium, Ames, IA.
- Pham, H. (2019). *Biclustering to explain genotype-by-environment interactions*, Syngenta Data Science Community of Practice, Raleigh, NC.
- Pham, H. (2019). *The digital future of agriculture*, INFORMS Annual Meeting, Seattle, WA.
- Amini, F., Shahhosseini, M., Hu, G., & Pham, H. (2019). *Improving prediction accuracy of regression problems with optimization-based ensemble learning and a two-layer feature selection method*, 2019 Midwest Big Data Hub All-Hands Meeting, Chicago, IL.
- Mosley, L., Pham, H., Bansal, Y., & Hare, E. (2019). *Sorghum head image analysis when you only want to look once*, Proceedings of the Second International Workshop on Machine Learning for Cyber-Agricultural Systems.
- Shahhosseini, M., Hu, G., & Pham, H. (2019). *Optimizing ensemble weights for machine learning models: A case study for housing price prediction*, Proceedings of the 2019 INFORMS Conference on Service Science.
- Pham, H. (2018). *Data analytics in agricultural business*, INFORMS Annual Meeting, Phoenix, AZ.
- Pham, H. (2018). *Biclustering for sparse data*, Iowa State University IMSE Graduate Seminar, Ames, IA.
- Reisner, J., & Pham, H. (2018). *Biclustering for sparse data*, 1st Midwest Statistical Machine Learning Colloquium, Ames, IA.

## Funding

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- College of Business Summer 2026 Course Innovation Grant, *University of Alabama in Huntsville*, 05/2026 - 08/2026, PI., \$6,250
- College of Business Summer 2024 Course Innovation Grant, *University of Alabama in Huntsville*, 05/2024 - 08/2024, PI., \$6,250
- College of Business Summer 2024 Research Grant, *University of Alabama in Huntsville*, 05/2024 - 08/2024, PI., \$13,930
- Data Lifecycle and Model Governance, *Franklin Creative Solutions*, 09/2022 - 12/2022, PI., \$10,000
- College of Business Summer 2022 Course Innovation Grant, *University of Alabama in Huntsville*, 05/2022 - 08/2022, PI., \$6,250
- New Faculty Research Grant, *University of Alabama in Huntsville*, 04/2022 - 05/2023, PI., \$10,000

## Teaching

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### **The University of Alabama in Huntsville**.....

- HON 301: Seminar on Cryptocurrencies
- HON 301: Seminar on Sports Analytics
- HON 301: Seminar on Anime Debates
- IS 210: Intro to Computer Programming in Business
- IS 301: Information Systems in Organizations

- IS 471/571: Business Analytics and AI
- IS 480/580: Intro to Analytics with AWS
- MSC 385: Operations Analysis
- MSC 550: Intro Analytics and Programming
- MSC 615: Decision Modeling
- MSC 650: Special Topics - Deep Learning
- MSC 692: Business Analytics Practicum

#### **Iowa State University**.....

- IE 361: Statistical Quality Assurance
- IE 590: Special Topics - Analytics Projects for Improved Decision Making in the Financial Sector
- IE 590: Special Topics - Analytics Projects for Improved Decision Making in the Agricultural Sector

#### **Kansas State University**.....

- Math 100: College Algebra
- Math 240: Elementary Differential Equations

### **Honors and Awards**

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- **2024**: Outstanding Undergraduate Faculty Teaching Award, UAH College of Business
- **2024**: Outstanding Graduate Faculty Teaching Award, UAH College of Business
- **2019**: 1st Place in Image-Based Sorghum Head Object Detection and Counting Machine Learning Competition, Second International Workshop on Machine Learning for Cyber-Agricultural Systems
- **2018**: Graduate Student Research Excellence Award, Iowa State University
- **2018**: Best Poster - *Biclustering for Sparse Data*, 1st Midwest Statistical Machine Learning Colloquium
- **2018**: Most Popular Poster - *Biclustering for Sparse Data*, 6th Annual IMSE Research Symposium
- **2017**: Graduate Student Teaching Excellence Award, Iowa State University
- **2017**: Most Popular Poster - *Understanding why NBA Teams with Superior Talent Lose in the Playoffs*, 5th Annual IMSE Research Symposium
- **2014 – 2016**: Timothy R. Donoghue Graduate Scholarship, Kansas State University

### **Mentoring**

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#### **The University of Alabama in Huntsville**.....

##### **Current Students**

**2024 – Present**: Veronica Schrimpsheer, Ph.D. in Engineering Management – Thesis Advisor

**2026 – Present**: Muhammad Ibrar, Ph.D. in Civil and Environmental Engineering – Committee Member

##### **Completed**

**2024 – 2026**: Anyama Tettey, Ph.D. in Industrial Engineering – Thesis Advisor

*Thesis: A Hierarchical, Data-Driven Analytical Paradigm for Strategic Planning, Operational Decision-Making, and Resilience Enhancement in United States Electric Power Systems under Extreme Demand Conditions*

**2022 – 2023**: Charity Mwanza, M.S. in Business Analytics – Thesis Advisor

*Thesis: Graph Neural Networks for Ethereum Fraud Detection*

## Institutional Service

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- **2025–Current:** Member, UAH Honors Council, UAH Honors College
- **2025–Current:** Faculty Advisor, Sand Volleyball Club, UAH
- **2025–Current:** Member, AI Working Group, UAH College of Business
- **2025–2026:** Member, Eminent Scholar in Management of Technology Search Committee, Information Systems, Supply Chain and Analytics, UAH College of Business
- **2024–2026:** Member, Curriculum Committee, UAH College of Business
- **2025:** Member, College of Business Dean Review Committee, UAH
- **2024:** Member, Lecturer Search Committee, Industrial and Systems Engineering and Engineering Management, UAH College of Engineering
- **2023:** Member, Faculty Development Committee, UAH College of Business
- **2022:** Member, Tenure Track Management Science Search Committee, UAH College of Business
- **2021:** Member, Department Chair Search Committee, Information Systems, Supply Chain and Analytics, UAH College of Business

## Professional Service

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- **2026:** Session Chair, 2026 INFORMS Conference on Quality, Statistics, and Reliability
- **2025:** Co-Chair, 2025 INFORMS Data Mining Society's Data Challenge
- **2024:** Co-Chair, 2024 INFORMS Data Mining Society's Data Challenge
- **2023:** Co-Chair, 2023 INFORMS Data Mining Society's Data Challenge
- **2023:** Session Chair, 2023 INFORMS Annual Meeting
- **2022:** Session Chair, 2022 INFORMS Annual Meeting
- **2019:** Organizing Committee Member, 2nd Midwest Statistical Machine Learning Colloquium
- **Invited Manuscript Reviewer:** *Agriculture; Agronomy; Applied Soft Computing; Artificial Intelligence Review; Blockchain: Research and Applications; Cluster Computing; Computers, Materials and Continua; Discover Artificial Intelligence; Discover Applied Sciences; Distributed Ledger Technologies; Ecological Informatics; Expert Systems with Applications; Frontiers in Plant Science; IEEE Systems; International Journal of Information Security and Privacy; International Journal of Machine Learning and Cybernetics; Knowledge-Based Systems; Knowledge and Information Systems; Machine Learning with Applications; Mathematics; Micromachines; Pattern Recognition; Pattern Recognition Letters; Plant Phenomics; PLOS One; Sensors; Soft Computing; Statistics and Computing; Statistics in Medicine; The Journal of Supercomputing*

## Professional Societies

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- **2018 – Present:** INFORMS, Membership

## Open-Source R Packages

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- **biclustermd:** Access Link
- **decp:** Access Link
- **uniswappeR:** Access Link