

# ZHE DENG

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## ACADEMIC EXPERIENCE

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August 2023-	<b>SAINT JOSEPH'S UNIVERSITY</b>	<b>PHILADELPHIA, PENNSYLVANIA</b>
Present	<b>Assistant Professor</b> Department of Decision and System Sciences, Haub School of Business <b>Co-Chair</b> AI Committee, Haub School of Business	
March 2022-	<b>CARNEGIE MELLON UNIVERSITY</b>	<b>PITTSBURGH, PENNSYLVANIA</b>
March 2023	<b>Post-Doctoral Research Fellow</b> Heinz College of Information Systems and Public Policy	
August 2016-	<b>TEMPLE UNIVERSITY</b>	<b>PHILADELPHIA, PENNSYLVANIA</b>
May 2022	<b>Research Assistant, Instructor</b> Fox School of Business	

## EDUCATION

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August 2016-	<b>TEMPLE UNIVERSITY</b>	<b>PHILADELPHIA, PENNSYLVANIA</b>
May 2022	<b>Ph.D. in Management Information Systems</b> Fox School of Business	<i>(Presidential Fellowship)</i>
August 2012-	<b>UNIVERSITY OF FLORIDA</b>	<b>GAINESVILLE, FLORIDA</b>
May 2014	<b>Master of Science in Information Systems &amp; Operations Management</b> Hough Graduate School of Business, Warrington College of Business Administration	
August 2007	<b>NORTHWEST UNIVERSITY</b> <b>Bachelor of Science in Information Management &amp; Information Systems</b> School of Economics and Management	<b>XI'AN, CHINA</b> <i>(Magna Cum Laude)</i>

## RESEARCH INTERESTS

*Topics:* Information Systems and Education, Policies for Emerging Technology, Information Systems and Healthcare, Supply Chain Management, Video Analytics.

*Methodologies:* Field Experiments, Econometrics, Machine Learning and Deep Learning

## Publication

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1. **Deng, Z.**, Z. Cheng, P. Ferreira, and P. A. Pavlou, From Smartphones to Smart Students: Learning versus Distraction with Mobile Devices in the Classroom and Student Success. Forthcoming. *Information Systems Research*.

## WORKING PAPERS

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1. Y. Chu, **Deng, Z.**, W. Wang, P. Ferreira. From Views to Learning: How Information Cues Transform Video-Based Online Education. Preparing for *Management Science*.
2. **Deng, Z.**, J. Jung, P. A. Pavlou, and Q. Sun, Would Unlimited Internet lead to Unlimited Learning? A Field Experiment of Internet Policy on Educational Outcomes. Preparing for journal submission.
3. **Deng, Z.**, S. Ayabakan, S. Kumar, and P. A. Pavlou. 2019, Patient-sharing Network, EHR Adoption, and Patient Outcomes: An Empirical Investigation. Preparing for journal submission.

## WORKING IN PROGRESS

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1. “Student Depression Detection: An Attention-based Bi-LSTM Approach Using Online and Offline Behavior Data” (With Guohou Shan, Konstantin Bauman, and Qian Sun)
2. “User-Generated Videos in Climate Change Education” (with Pedro Ferreira, Rodrigo Belo, and Yael Inbar)
3. “Student Reaction and Tutor Teaching Satisfaction: Evidence from Online Class Video Feeds” (with Pedro Ferreira)

## PRESENTATIONS

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1. **Deng, Z.**, P. Ferreira. 2024. Can Face Tell Learning? Evidence From Zoom Lectures. INFORMS Annual Meeting, Oct 20-23, 2024, Seattle, WA
2. Y. Chu, **Deng, Z.**, W. Wang, P. Ferreira. 2024. Multimodal Video Learning: Managing Cognitive Load Patterns using Guided Attention Graphs. INFORMS Annual Meeting, Oct 20-23, 2024, Seattle, WA
3. **Deng, Z.** 2024. Matching Supply with Demand: Data-Driven Methods in Supply Chain Analytics. PLMA Executive Education. Jun. 11, 2024, Philadelphia, PA
4. G. Shan, **Deng, Z.**, K. Bauman, and Q. Sun. 2022. Student Depression Detection: An Attention-based Bi-LSTM Approach Using Online and Offline Behavior Data. INFORMS Annual Meeting, Oct 16-19, 2022, Indianapolis, IN
5. **G. Shan**, Deng, Z., K. Bauman, and Q. Sun. 2021. Student Depression Detection: An Attention-based Bi-LSTM Approach Using Online and Offline Behavior Data. China Summer Workshop on Information Management (CSWIM), July 4 – 6, 2021, Chongqing, China
6. G. Shan, **Deng, Z.**, K. Bauman, and Q. Sun. 2021. Student Depression Detection: An Attention-based Bi-LSTM Approach Using Online and Offline Behavior Data. Statistical Conference in E-Commerce Research (SCECR), June 17-18, 2021, Online
7. **Deng, Z.** 2021. Social Science Research Utilizing Online Traffic Auditing Data. Workshop on Online Traffic Data Science@Panabit Co. Ltd., March 31st, 2021, Beijing, China
8. G. Shan, **Deng, Z.**, K. Bauman, and Q. Sun. 2020. Student Depression Detection: An Attention-based Bi-LSTM Approach Using Online and Offline Behavior Data. Workshop on Information Technologies and Systems (WITS), December 16-18, 2020, Online
9. **Deng, Z.**, P. Ferreira, R. Belo, and Y. Inbar. 2020. Video Creation and Watching in Formal Learning Environments: A Randomized Field Experiment on Video-Based Peer Tutoring. Statistical Conference in E-Commerce Research (SCECR), June 18-20, 2020, Madrid, Spain
10. **Deng, Z.**, J. Jung, P. A. Pavlou and Q. Sun. 2020. Would Unlimited Internet lead to Unlimited Learning? A Field Experiment of Internet Policy on Educational Outcomes. Statistical Conference in E-Commerce Research (SCECR), June 18-20, 2020, Madrid, Spain
11. Deng, Z., Z. Cheng, **P. Ferreira**, and P. A. Pavlou. 2019. From Smartphones to Smart Students: Distraction versus Learning with Mobile Devices in the Classroom and Student Success. Guest Speaker Seminar at University of California, Berkeley, October 2, 2019, Berkeley, CA
12. **Deng, Z.** 2019. Data Mining and Knowledge Discovery. MBA Seminar Series at Northwest University, June 26, 2019, Xi'an, China
13. **Deng, Z.**, S. Ayabakan, S. Kumar, and P. A. Pavlou. 2019. Patient-sharing Network, EHR Adoption, and Healthcare Outcome: An Empirical Investigation. Statistical Conference in E-Commerce Research (SCECR), June 10-13, 2019, Hong Kong, China
14. Deng, Z., **S. Ayabakan**, S. Kumar, and P. A. Pavlou. 2019. Patient-sharing Network, EHR Adoption, and Patient Outcomes: An Empirical Investigation. Production and Operations Management Society (POMS) Annual Conference, May 2-6, 2019, Washington, D.C.
15. Deng, Z., Z. Cheng, **P. Ferreira**, and P. A. Pavlou. 2019. Mobile Device Policy, Attention Allocation, and Student Performance: Evidence from a Video-Tracking Randomized Experiment. Guest Speaker Seminar at University of Pittsburgh, April 19, 2019, Pittsburgh, PA
16. **Deng, Z.**, Z. Cheng, P. Ferreira, and P. A. Pavlou. 2018. Mobile Device Policy, Attention Allocation, and Student Performance: Evidence from a Video-Tracking Randomized Experiment. Workshop on Information Systems and Economics (WISE), December 17-18, 2018, San Francisco, CA

17. **Deng, Z.**, Z. Cheng, P. Ferreira, and P. A. Pavlou. 2018. Mobile Device Policy, Attention Allocation, and Student Performance: Evidence from a Video-Tracking Randomized Experiment. Conference on Information Systems and Technology (CIST), November 3-4, 2018, Phoenix, Arizona
18. **Deng, Z.**, Z. Cheng, P. Ferreira, and P. A. Pavlou. 2018. Mobile Device Policy, Attention Allocation, and Student Performance: Evidence from a Video-Tracking Randomized Experiment. Conference on Digital Experimentation (CODE@MIT), October 27-28, 2018, Cambridge, MA
19. **Deng, Z.**, S. Ayabakan, S. Kumar, and P. A. Pavlou. 2018. Patient-sharing Network and Patient Outcomes: An Empirical Investigation. Conference on Health IT and Analytics (CHITA), October 19-20, 2018, Washington, D.C.
20. **Deng, Z.**, Z. Cheng, P. Ferreira, and P. A. Pavlou. 2018. Mobile Device Policy, Attention Allocation, and Student Performance: Evidence from a Video-Tracking Randomized Experiment. Statistical Conference in E-Commerce Research (SCECR), June 18-19, 2018, Rotterdam, Netherlands
21. **Deng, Z.**, S. Ayabakan, S. Kumar, and P. A. Pavlou. 2018. Physician Professional Network and Inpatient Outcomes: An Empirical Investigation. Production and Operations Management Society (POMS) Annual Conference, May 4-7, 2018, Houston, TX
22. **Deng, Z.**, Z. Cheng, P. Ferreira, and P. A. Pavlou. 2017. Mobile Distraction in Class: An Empirical Investigation on Smartphone Use Policies. Conference on Digital Experimentation (CODE@MIT), October 27-28, 2017, Cambridge, MA

## TEACHING

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1. **Business Intelligence and Analytics**
  - a. DSS 315 - BIA Concepts & Practices: Spring 2024
2. **Supply Chain Management:**
  - a. DSS 335 - Foundations of Supply Chain Management: Fall 2023, Fall 2024
  - b. DSS 465/710 - Supply Chain Analytics: Fall 2023, Fall 2024
3. **Quality Control:**
  - a. DSS 720 - Six Sigma Applications & Foundations: Spring 2024

## HONORS AND AWARDS

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**Presidential Fellowship**, the most prestigious five-year university-level award for PhD students at Temple University, 2016

**First Prize Scholarship (*Magna Cum Laude*)**, the most prestigious university-level award at Northwest University, 2010

**Outstanding Student Leaders**, the highest student leader honor at university-level award at Northwest University, 2009

## FUNDING AND GRANTS

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1. **Milton Lev Faculty Research Grants. Saint Joseph's University, \$5,000**

How Information Cues Transform Video-Based Online Education? Combining Randomized Experiments and Multimodal Machine Learning
2. **Summer Research Fund. Saint Joseph's University, \$6,000**

Would Unlimited Internet lead to Unlimited Learning? A Field Experiment of Internet Policy on Educational Outcomes.
3. **2020 21th Young Scholar Forum. Temple Univ. Grant, \$2,500**

Student Depression Detection: An Attention-based Bi-LSTM Approach Using Online and Offline Behavior Data. (With G. Shan, K. Bauman, and Q. Sun)
4. **2020 Spring 2020 Seed Funding Forum. Temple Univ. Grant, \$7,500**

Would Unlimited Internet lead to Unlimited Learning? A Field Experiment of Internet Policy on Educational Outcomes. (With J. Jung, P. A. Pavlou, and Q. Sun)
5. **2020 20th Young Scholar Forum. Temple Univ. Grant, \$1,000**

Student Depression Detection Based on Online-offline Behaviors. (With G. Shan, K. Bauman and Q. Sun)
6. **2019 19th Young Scholar Forum. Temple Univ. Grant, \$2,000**

Unlimited Internet Use vs. Limited Performance? A Field Experiment on Education Outcomes. (with J. Jung, P. A. Pavlou, and Q. Sun)

**7. 2018 17th Young Scholar Forum. Temple Univ. Grant, \$2,000**

Patient-sharing Network and Patient Outcomes: An Empirical Investigation. (With S. Ayabakan, S. Kumar, and P. A. Pavlou)

**8. 2018 16th Young Scholar Forum. Temple Univ. Grant, \$750**

Physician Social Network and Patient Outcomes: An Empirical Investigation. (With S. Ayabakan, S. Kumar, and P. A. Pavlou)

**9. 2017 14th Young Scholar Forum. Temple Univ. Grant, \$2500**

Mobile Distraction in Class: A Video-Tracking Field Experiment (With Z. Cheng, P. Ferreira, and P. A. Pavlou)

**10. 2016 13th Young Scholar Forum. Temple Univ. Grant, \$500**

Smartphone: A Pandora's Box for Students in Class (With Z. Cheng, P. Ferreira, and P. A. Pavlou)

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## SERVICE

1. Session Chair – INFORMS Annual Meeting, 2024
2. Reviewer – MIS Quarterly 2019, 2020, 2021, 2022
3. Reviewer – Electronic Commerce Research and Applications (ECRA) 2019, 2020
4. Reviewer – International Conference on Information Systems (ICIS) 2018, 2019, 2020, 2021, 2022, 2024
5. Reviewer – Conference on Information Systems and Technology (CIST) 2018, 2020, 2024
6. Reviewer – Workshop on Information Technologies and Systems (WITS) 2019
7. Reviewer – European Conference on Information Systems (ECIS) 2019
8. Reviewer – Pacific Asia Conference on Information Systems (ECIS) 2024
9. Reviewer – New England Association for Information Systems Conference 2022
10. External Researcher – Shaanxi Business College, China 2016, 2017, 2018, 2019, 2020, 2021, 2022
11. External Researcher – Kooledge.com 2018- 2022
12. External Researcher – Contemporary Education Technology Center, Northwest University, China 2019-2024
13. External Researcher – Nroad Net Co. Ltd. 2019, 2020, 2021, 2022
14. External Researcher – Panabit Co. Ltd. 2020-2024

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## SELECTED COURSEWORK

Micro-Economics, Game Theory, Information Economics

Statistics I, II, Econometrics I, II, III, IV

Management of Information Systems Seminars: Pro-seminar, E-commerce, Digital Innovation, Economics of IT

Operations Management Seminar: Continuous and Nonlinear Optimization Methods

Knowledge Discovery and Data Mining

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## SOFTWARE / PROGRAMMING SKILLS

**Data Science Software:** Python, STATA, R

**Quantitative Software:** SPSS, Wolfram Mathematica, Quantitative Methods (QM), Excel, Tableau

**Programming Languages and Skills:** C, C#, Java, SQL, ASP. NET, Java-WS, HTML