

# Linfeng Zhang

VISITING ASSISTANT PROFESSOR OF ACTUARIAL SCIENCE

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## Education

### University of Illinois at Urbana-Champaign

PHD MATHEMATICS (CONCENTRATION IN ACTUARIAL SCIENCE AND RISK ANALYTICS)

*Illinois*

*August 2019 - present*

### University of Illinois at Urbana-Champaign

MS FINANCE

*Illinois*

*August 2015 - May 2016*

### University of Illinois at Urbana-Champaign

BS ACTUARIAL SCIENCE, STATISTICS

- Minor in Astronomy

*Illinois*

*August 2011 - May 2015*

## Professional Experience

2022-  
present

**Visiting Assistant Professor**, College of Business & Public Administration, Drake University

2021-2022

**Data Scientist**, Charlee.AI

2019-2022

**Graduate Supervisor/Project Manager**, Illinois Risk Lab, University of Illinois

2016-2019

**Research Assistant**, Information Trust Institution, University of Illinois

## Publications

### PUBLISHED

Feng, R., Garrido, J., Jin, L., Loke, S.H., Zhang, L., 2022. Epidemic Compartmental Models and Their Insurance Applications. In: Boado-Penas, M.d.C., Eisenberg, J., Şahin, Ş. (eds) *Pandemics: Insurance and Social Protection*. Springer Actuarial. Springer, Cham.

Chen, X., Chong, W.F., Feng, R., Zhang, L., 2021. Pandemic Risk Management: Resources Contingency Planning and Allocation. *Insur Math Econ.* 101, 359–383.

Kesan, J.P., Zhang, L., 2021. When Is A Cyber Incident Likely to Be Litigated and How Much Will It Cost? An Empirical Study. *Conn. Ins. L.J.* 27(2), 529–580.

Kesan, J.P., Zhang, L., 2020. Analysis of Cyber Incident Categories Based on Losses. *ACM Trans. Manage. Inf. Syst.* 11, 1–28.

Kesan, J.P., Zhang, L., 2019. An Empirical Investigation of the Relationship between Local Government Budgets, IT Expenditures and Cyber Losses. *IEEE Trans. Emerg. Topics Comput.* 9(2), 582–596.

Tonn, G., Kesan, J.P., Zhang, L., Czajkowski, J., 2019. Cyber risk and insurance for transportation infrastructure. *Transport Policy.* 79, 103–114.

Shetty, S., McShane, M., Zhang, L., Kesan, J.P., Kamhoua, C.A., Kwiat, K., Njilla, L.L., 2018. Reducing Informational Disadvantages to Improve Cyber Risk Management†. *Geneva Pap Risk Insur Issues Pract.* 43, 224–238.

### IN REVIEW

Chong, W.F., Feng, R., Hu, Z., Zhang, L. Cyber Risk Assessment for Capital Management.

### IN PREP

Chong, W.F., Linders, D., Quan, Z., Zhang, L. Incident-Specific Cyber Insurance for Market Substantiality and Potential Growth. (Working Paper)

Chong, W.F., Feng, R., Zhang, L. In Preparation for Privacy Breach: Balancing Data Utility and Privacy Risk. (Working Paper)

## Grants

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|------|---|--------------|
| 2022 | <b>SOA Cyber Risk Literature Search Grant</b> , with Wing Fung (Alfred) Chong, Runhuan Feng, and Zhiyu Quan, Society of Actuaries | <i>Co-PI</i> |
| 2020 | <b>Impact of COVID-19 Grant</b> , with Xiaowei Chen, Wing Fung (Alfred) Chong, and Runhuan Feng, Canadian Institute of Actuaries  | <i>Co-PI</i> |

## Awards & Fellowships

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| 2022 | <b>ARC Graduate Student Presentation Award Honorable Mention</b> , 2022 Actuarial Research Conference, Society of Actuaries |
| 2021 | <b>Maplesoft Best Student Paper Awards</b> , Virtual 24th International Congress on Insurance: Mathematics and Economics    |
| 2020 | <b>CAS Best of 2020</b> , 2020 CAS Annual Meeting, Casualty Actuarial Society   |
| 2019 | <b>State Farm Mathematics Doctoral Scholarship</b> , State Farm Insurance   |

## Presentations

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### INVITED TALKS

Feng, R., Chong, W.F., & Zhang, L. 2021. Pandemic Risk Management: Resources Contingency Planning and Allocation. 2021 Casualty Loss Reserve Seminar, Online.

Zhang, L. 2018. Cyber Risk Assessment to Empower Cyber Insurance markets. ISF US Chapter Spring Conference, Chicago, Illinois.

### CONTRIBUTED PRESENTATIONS

Zhang, L. 2022. Cyber Risk Assessment for Capital Management. 2022 INFORMS Annual Meeting, Indianapolis, Indiana.

Zhang, L. 2022. Pandemic Risk Management: Resources Contingency Planning and Allocation. The 57th Actuarial Research Conference, Champaign, Illinois.

Zhang, L. 2022. Pandemic Risk Management: Resources Contingency Planning and Allocation. 25th International Congress on Insurance: Mathematics and Economics, Online.

Zhang, L. 2021. Cyber Risk Assessment of Capital Management. Virtual 24th International Congress on Insurance: Mathematics and Economics, Online.

Zhang, L. 2021. Cyber Risk Assessment of Capital Management. The 56th Actuarial Research Conference, Online.

Feng, R., Chong, W.F., & Zhang, L. 2021. Pandemic Risk Management: Resources Contingency Planning and Allocation. *act21* CIA Annual Conference, Online.

Feng, R., Chong, W.F., & Zhang, L. 2020. Pandemic Risk Management: Resources Contingency Planning and Allocation. 2020 CAS Annual Meeting, Online.

Feng, R., Chong, W.F., & Zhang, L. 2020. Pandemic Risk Management: Resources Contingency Planning and Allocation. SOA Webcast, Online.

Feng, R., Chong, W.F., & Zhang, L. 2020. Pandemic Risk Management: Resources Contingency Planning and Allocation. One World Actuarial Research Seminar, Online.

Feng, R., Chong, W.F., & Zhang, L. 2020. Pandemic Risk Management: Resources Contingency Planning and Allocation. Fall 2020 Actuarial Science and Financial Mathematics Seminar, Champaign, Illinois.

## Teaching Experience

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Fall 2022	<b>ACTS/INS 190 - Case Studies Ins &amp; Act Sci</b> , Instructor	Drake
Fall 2022	<b>ACTS 135 - Mathematical Statistics</b> , Instructor	Drake
Fall 2020	<b>ASRM 195 - Foundations of Data Management</b> , Instructor	UIUC
Fall 2019	<b>MATH 563 - Risk Modeling and Analysis</b> , Teaching Assistant	UIUC

Research Experience

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**University of Illinois at Urbana-Champaign - Dept of Math**  
SUPERVISORS: DR. ALFRED CHONG, DR. RUNHUAN FENG  
Research Assistant  

- Sponsor: Cisco
- Project: Privacy Risk Assessment

Champaign, IL  
May. 2021 - Present

**University of Illinois at Urbana-Champaign - Dept of Math**  
SUPERVISORS: DR. RUNHUAN FENG, DR. ALFRED CHONG, DR. DANIEL LINDERS, DR. JAY P. KESAN  
Research Assistant  

- Sponsor: Society of Actuaries
- Project: Actuarial Innovation and Technology on Cyber Risk

Champaign, IL  
Jan. 2019 - Jul. 2021

**University of Illinois at Urbana-Champaign - Illinois Risk Lab**  
GRADUATE SUPERVISOR  

- Project: Pekin Insurance General Liability Insurance (GL) Loss Predictive Model
- Project: AI-Powered Lifecycle Financial Planning
- Project: Cyber Risk Data Analysis
- Project: covidplan.io Maintenance and Development
- Project: Visualization of Pandemic Contingency Planning and Medical Resources Allocation
- Project: Cyber Risk Profile Construction via Individual Cyber Losses Aggregation

Champaign, IL  
Aug. 2019 - Present

**University of Illinois at Urbana-Champaign - Dept of Math**  
SUPERVISORS: DR. RUNHUAN FENG, DR. ALFRED CHONG  
Research Assistant  

- Sponsor: Canadian Institute of Actuaries
- Project: Pandemic Risk Management: Resources Contingency Planning and Allocation

Champaign, IL  
Jun. 2020 - Jun. 2021

**University of Illinois at Urbana-Champaign - Dept of Math**  
SUPERVISORS: DR. RUNHUAN FENG, DR. ALFRED CHONG, DR. DANIEL LINDERS, DR. JAY P. KESAN  
Research Assistant  

- Sponsor: Fundación MAPFRE
- Project: Cyber Insurance – Challenges and Opportunities for Market Growth

Champaign, IL  
Jun. 2019 - Dec. 2020

**University of Illinois at Urbana-Champaign - Information Trust Institute**  
SUPERVISOR: DR. JAY P. KESAN  
Research Assistant  

- Sponsor: Critical Infrastructure Resilience Institute
- Project: Towards Community Resilience through Comprehensive Risk Assessment for Business Continuity

Champaign, IL  
2016 - 2019