Meng-Chieh (Jeremy) Lee

| CONTACT INFORMATION | Website: https://mengchillee.github.io/
 Google Scholar: https://bit.ly/3mDenyM
 GitHub: https://github.com/mengchillee | +1-412-694-2276 <br> mengchil@cs.cmu.edu |

EDUCATION

Carnegie Mellon University Pittsburgh, PA
Ph.D., Computer Science Department Aug 2021 - Present

> **Advisors:** Christos Faloutsos and Leman Akoglu

Carnegie Mellon University Pittsburgh, PA
Research Scholar, Information Systems and Public Policy Aug 2019 - Aug 2020

> **Advisors:** Christos Faloutsos and Leman Akoglu

National Chiao Tung University Hsinchu, Taiwan
M.S., Computer Science and Engineering July 2017 - July 2019

> **Advisor:** Vincent S. Tseng

National Taiwan Normal University Taipei, Taiwan
B.S., Computer Science and Information Engineering Sept 2013 - June 2017

AWARDS AND GRANTS

2022 IEEE Visualization Conference (IEEE VIS)
Best Paper Honorable Mention Oct 2022

2021 IEEE Visualization Conference (IEEE VIS)
Best Poster Honorable Mention Oct 2021

AWS Cloud Credit for Research
$19,000 AWS Credits, and my project Linear First is involved Sept 2021

National Chiao Tung University
Dean's List Award Feb 2019

REFEREED PUBLICATIONS APPEARED

1. **Lee, M.C.**, Yu, H., Zhang, J., Ioannidis, V.N., Song, X., Adeshina, S., Zheng, D., and Faloutsos, C., "NetInfoF Framework: Measuring and Exploiting Network Usable Information". *International Conference on Learning Representations (ICLR), 2024.* (Spotlight)

2. Cazzolato, M., Vijayakumar, S., **Lee, M.C.**, Vajiac, C., Park, N., Fidalgo, P., Traina, A., and Faloutsos, C., "CallMine: Fraud Detection and Visualization of Million-Scale Call Graphs". *ACM International Conference on Information and Knowledge Management (CIKM), 2023.*

3. Yoo, J.*, **Lee, M.C.***, Shekhar, S., and Faloutsos, C., "Less is More: SLIMG for Accurate, Robust, and Interpretable Graph Mining". *ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD), 2023.*

4. Vajiac, C., **Lee, M.C.**, Kulshrestha, A., Levy, S., Park, N., Olligschlaeger, A., Jones, C., Rabbany, R., and Faloutsos, C., "DELTASHIELD: Information Theory for Human-Trafficking Detection". *ACM Transactions on Knowledge Discovery from Data (TKDD), 2023.*

5. Cazzolato, M., Vijayakumar, S., Zheng, X., Park, N., **Lee, M.C.**, Chau, D.H., Fidalgo, P., Lages, B., Traina, A., and Faloutsos, C., "TGRAPP: Anomaly Detection and Visualization of Large-Scale Call Graphs". *AAAI Conference on Artificial Intelligence (AAAI), 2023.*

6. Cazzolato, M., Vijayakumar, S., Zheng, X., Park, N., **Lee, M.C.**, Fidalgo, P., Lages, B., Traina, A., and Faloutsos, C., "TgraphSpot: Fast and Effective Anomaly Detection for Time-Evolving Graphs". *IEEE International Conference on Big Data (BigData), 2022.*

7. Vajiac, C., Chau, D.H., Olligschlaeger, A., Mackenzie, R., Nair, P., **Lee, M.C.**, Li, Y., Park, N., Rabbany, R., A., and Faloutsos, C., "TrafficVis: Visualizing Organized Activity and Spatio-Temporal Patterns for Detecting and Labeling Human Trafficking". *IEEE Visualization Conference (IEEE VIS), 2022.* (Best Paper Honorable Mention)

8. Nair, P., Li, Y., Vajiac, C., Olligschlaeger, A., **Lee, M.C.**, Park, N., A., Chau, D.H., Faloutsos, C., and Rabbany, R., "VisPaD: Visualization and Pattern Discovery for Fighting Human Trafficking". *ACM International World Wide Web Conference (WWW), 2021.*

9. **Lee, M.C.***, Shekhar, S.*, Faloutsos, C., Hutson, T.N., and Lasemidis, L., "GEN^{2}OUT: Detecting and Ranking Generalized Anomalies". *IEEE International Conference on Big Data (BigData), 2021.*

10. **Lee, M.C.**, Nguyen, H., Berberidis, D., Tseng, V.S., and Akoglu, L., "GAWD: Graph Anomaly Detection in Weighted Directed Graph Databases". *IEEE/ACM International Conference on Advances in Social Network Analysis and Mining (ASONAM), 2021.*

11. Vajiac, C., Olligschlaeger, A., Li, Y., Nair, P., **Lee, M.C.**, Park, N., Rabbany, R., A., Chau, D.H., and Faloutsos, C., "TrafficVis: Fighting Human Trafficking through Visualization". *IEEE Visualization Conference (IEEE VIS), 2021.* (Best Poster Honorable Mention)

12. **Lee, M.C.***, Vajiac, C.*, Kulshrestha, A., Levy, S., Park, N., Jones, C., Rabbany, R., and Faloutsos, C., "INFOSHIELD: Generalizable Information-Theoretic Human-Trafficking Detection". *37th IEEE International Conference on Data Engineering (ICDE), 2021.*

13. **Lee, M.C.**, Zhao, Y., Wang, A., Liang, P.J., Akoglu, L., Tseng, V.S., and Faloutsos, C., "AUTOAUDIT: Mining Accounting and Time-Evolving Graphs". *IEEE International Conference on Big Data (BigData), 2020.*

14. **Lee, M.C.**, Huang, Y., Ying, J.J.C., Chen, C., and Tseng, V.S., "DeepIdentifier: A Deep Learning-Based Lightweight Approach for User Identity Recognition". *15th International Conference on Advanced Data Mining and Applications (ADMA), 2019, November.*

15. Huang, Y., **Lee, M.C.**, Tseng, V.S., Hsiao C.J. and Huang C.C., "Robust Sensor-based Human Activity Recognition with Snippet Consensus Neural Networks". *16th IEEE International Conference on Wearable and Implantable Body Sensor Networks (BSN), 2019.*

OTHER
PUBLICATIONS

16. **Lee, M.C.**, Shekhar, S., Yoo, J., and Faloutsos, C., "Discovery and Exploitation of Generalized Network Effects". arXiv preprint arXiv:2301.00270.

17. Kulshrestha, A., Vajiac, C., Levy, S., Wang, J., Park, N., Jones, C., Eswaran, D., **Lee, M.C.**, Faloutsos, C., and Rabbany, R., "TrafficLight: Holistic Detection of Human Trafficking in Online Escort Market".

IN THE NEWS	INFOSHIELD **for Human Trafficking Detection**	May 2021

- WPXI
- CMU News

WORK EXPERIENCE	**Amazon**	Santa Clara, CA
	Applied Scientist Intern	May 2023 - Aug 2023

	Amazon	Palo Alto, CA
	Applied Scientist Intern	May 2022 - Aug 2022

TEACHING EXPERIENCE

CMU 11-868: Large Language Model Systems
Instructor: Lei Li
Spring 2024

CMU 15-883: Computational Models of Neural Systems
Instructor: David Touretzky
Fall 2023

PROJECT EXPERIENCE

Fraud Detection on Transactional Data
Advisors: Christos Faloutsos
Dec 2021 - Present

- Collaborated with PNC Bank
- Identified fraudulent transactions and users

Fraud Detection on Phone Call Networks
Advisors: Christos Faloutsos
Dec 2021 - Present

- Collaborated with Mobileum
- Detected fraudulent phone calls in who-calls-whom temporal networks

Anti-Human Trafficking
Advisors: Christos Faloutsos, Reihaneh Rabbany and Polo Chau
Mar 2020 - Present

- Collaborated with McGill University and Marinus Analytics
- Detected human trafficking associations by finding meta-clusters and templates

Data Science and Epilepsy
Advisors: Christos Faloutsos and Leonidas Jassemidis
Mar 2020 - Present

- Collaborated with Louisiana Tech University
- Located seizures and focal channels through brain EEG signal data

Business Graphs Analysis
Advisors: Christos Faloutsos, Leman Akoglu and Pierre Liang
Mar 2020 - Sept 2020

- Collaborated with Tepper School of Business at Carnegie Mellon University
- Identified patterns in syndicated loan datasets

Circadian Rhythm
Advisor: Vincent S. Tseng

Aug 2020 - Sept 2020

- Collaborated with MediaTek (Hsinchu, Taiwan)
- Analyzed circadian rhythm index by wrist-wearable data

Diabetic Retinopathy Severity Diagnosis
Advisor: Vincent S. Tseng

June 2018 - Nov 2018

- Collaborated with Industrial Technology Research Institute (Hsinchu, Taiwan)
- Integrated EMR with fundus images for diabetic retinopathy severity diagnosis

Activity Recognition using Smartphone Sensors
Advisor: Vincent S. Tseng

Sept 2017 - Sept 2018

- Collaborated with Compal Electronics (Taipei, Taiwan)
- Developed analytical techniques of physiological signal with wearable devices

RELEVANT COURSEWORK

CMU 10-703: Deep Reinforcement Learning
Instructor: Katerina Fragkiadaki

Fall 2022

CMU 36-705: Intermediate Statistics
Instructor: Sivaraman Balakrishnan

Fall 2021

PROFESSIONAL SERVICES

Session Chair

- **KDD:** 2023

Program Committee

- **SDM:** 2024

Conference Reviewer

- **WWW:** 2024
- **KDD:** 2022, 2023
- **ECML-PKDD:** 2023
- **ICDE:** 2023

PROGRAMMING LANGUAGES

Proficient: Python, LaTeX
Familiar: C++, MATLAB

SPOKEN LANGUAGES

Mandarin: Native
English: Fluent