

Meng-Chieh (Jeremy) Lee

CONTACT INFORMATION	Website: https://mengchilllee.github.io/ Google Scholar: https://bit.ly/3mDenyM GitHub: https://github.com/mengchilllee	+1-412-694-2276 mengchil@cs.cmu.edu
EDUCATION	<i>Carnegie Mellon University</i> Ph.D., Computer Science Department Advisors: Christos Faloutsos and Leman Akoglu	Pittsburgh, PA Aug 2021 - Present
	<i>Carnegie Mellon University</i> Research Scholar, Information Systems and Public Policy Advisors: Christos Faloutsos and Leman Akoglu	Pittsburgh, PA Aug 2019 - Aug 2020
	<i>National Chiao Tung University</i> M.S., Computer Science and Engineering Advisor: Vincent S. Tseng	Hsinchu, Taiwan July 2017 - July 2019
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	<ol style="list-style-type: none">1. Lee, M.C., Shekhar, S., Yoo, J., and Faloutsos, C., "Discovery and Exploitation of Generalized Network Effects". <i>Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD)</i>, 2024.2. Posam, L., Shekhar, S., Lee, M.C., and Faloutsos, C., "DiffFind: Discovering Differential Equations from Time Series". <i>Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD)</i>, 2024.3. Lee, M.C.*, Zhao, L.*, Akoglu, L., "Descriptive Kernel Convolution Network with Improved Random Walk Kernel". <i>ACM Web Conference (WWW)</i>, 2024.4. 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". <i>International Conference on Learning Representations (ICLR)</i>, 2024. (Spotlight)5. 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". <i>ACM International Conference on Information and Knowledge Management (CIKM)</i>, 2023.6. Yoo, J.*, Lee, M.C.*, Shekhar, S., and Faloutsos, C., "Less is More: SLIMG for Accurate, Robust, and Interpretable Graph Mining". <i>ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD)</i>, 2023.	

7. Vajiac, C., **Lee, M.C.**, Kulshrestha, A., Levy, S., Park, N., Olligschlaeger, A., Jones, C., Rabbany, R., and Faloutsos, C., “DELTA SHIELD: Information Theory for Human-Trafficking Detection”. *ACM Transactions on Knowledge Discovery from Data (TKDD)*, 2023.
8. 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.
9. 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.
10. 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)
11. 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.
12. **Lee, M.C.***, Shekhar, S.*, Faloutsos, C., Hutson, T.N., and Lasemidis, L., “GEN²OUT: Detecting and Ranking Generalized Anomalies”. *IEEE International Conference on Big Data (BigData)*, 2021.
13. **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.
14. 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)
15. **Lee, M.C.***, Vajiac, C.*, Kulshrestha, A., Levy, S., Park, N., Jones, C., Rabbany, R., and Faloutsos, C., “INFO SHIELD: Generalizable Information-Theoretic Human-Trafficking Detection”. *37th IEEE International Conference on Data Engineering (ICDE)*, 2021.
16. **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.
17. **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.
18. 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.

IN THE NEWS	INFOSHIELD for Human Trafficking Detection <ul style="list-style-type: none"> • WPXI • CMU News 	May 2021
WORK EXPERIENCE	Amazon Applied Scientist Intern	Palo Alto, CA May 2024 - Aug 2024
	Amazon Applied Scientist Intern	Santa Clara, CA May 2023 - Aug 2023
	Amazon Applied Scientist Intern	East Palo Alto, CA 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 <ul style="list-style-type: none"> • Collaborated with PNC Bank • Identified fraudulent transactions and users 	
	Fraud Detection on Phone Call Networks Advisors: Christos Faloutsos Dec 2021 - Present <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • 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

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

PROGRAMMING LANGUAGES

Proficient: Python, L^AT_EX

Familiar: C++, MATLAB

SPOKEN LANGUAGES

Mandarin: Native

English: Fluent