Chia-Hsuan Chang

🏠 Philadelphia, PA | ✉ cc3859@drexel.edu | 📞 (323) 528-7943 | in chia-hsuan-chang

EDUCATION

National Sun Yat-Sen University Kaohsiung, Taiwan
Ph.D. in Information Systems Sept. 2016 – July 2021
Dissertation: A Study on Text Analysis Across Languages
Advisor: Dr. San-Yih Hwang

Drexel University, College of Computing and Informatics Philadelphia, USA
Visiting Ph.D. Student Feb. 2020 – Feb. 2021
Supervisor: Dr. Christopher C. Yang

National Sun Yat-Sen University Kaohsiung, Taiwan
M.B.A. in Information Systems Sept. 2015 – June 2016

National Sun Yat-Sen University Kaohsiung, Taiwan
B.B.A. in Information Systems Sept. 2011 – June 2014

PROFESSIONAL EXPERIENCE

Drexel University, College of Computing and Informatics Philadelphia, USA
Postdoctoral Researcher Feb. 2023 – Present
Supervisor: Dr. Christopher C. Yang

National Sun Yat-Sen University, Department of Information Management Kaohsiung, Taiwan
Postdoctoral Researcher Oct. 2022 – Jan. 2023
Supervisor: Dr. San-Yih Hwang

PUBLICATIONS

Journal Articles

[J01] Wang, X., **Chang, C. H.**, & Yang, C. C. (2024). Achieving Equity via Transfer Learning with Fairness Optimization. Submitted to ACM Transactions on Intelligent Systems and Technology. (Under Review)

[J02] Lee. Y., **Chang, C. H.**, & Yang, C. C. (2024). Simulating African American Vernacular English in Medical Diagnostics with Large Language Models. Submitted to Journal of Medical Internet Research. (Under Review)

[J03] **Chang, C. H.**, & Yang, C. C. (2023). On Bridging Consumer Health Search across Languages using Cross-lingual Word Space. Electronic Commerce Research and Applications, 59, 101254.

[J04] Monselise, M., **Chang, C. H.**, Ferreira, G., Yang, R., & Yang, C. C. (2021). Topics and Sentiments of Public Concerns Regarding COVID-19 Vaccines: Social Media Trend Analysis. Journal of Medical Internet Research, 23(10), e30765.

[J05] **Chang, C. H.**, & Hwang, S. Y. (2021). A Word Embedding-based Approach to Cross-lingual Topic Modeling. Knowledge and Information Systems, 63(6), 1529-1555.

[J06] **Chang, C. H.**, Hwang, S. Y., & Wu, M. L. (2021). Learning Bilingual Sentiment Lexicon for Online Reviews. Electronic Commerce Research and Applications, 47, 101037.

[J07] **Chang, C. H.**, Monselise, M., & Yang, C. C. (2021). What Are People Concerned About During the Pandemic? Detecting Evolving Topics about COVID-19 from Twitter. Journal of Healthcare Informatics Research, 5(1), 70-97.

Conferences/Oral Presentations

[C01] **Chang, C. H.**, Lucas, M. M., Lee. Y., Lu-Yao G., & Yang, C. C. (2024). Beyond Self-Consistency: Ensemble Reasoning Boosts Consistency and Accuracy of LLMs in Cancer Staging. In 2024 International Conference on Artificial Intelligence in Medicine. (Accept)

[C02] **Chang, C. H.**, Wang, X., & Yang, C. C. (2024). Explainable AI for Fair Sepsis Mortality Predictive Model. In 2024 International Conference on Artificial Intelligence in Medicine. (Accept)

[C03] **Chang, C. H.**, Lucas, M. M., Lu-Yao G., & Yang, C. C. (2024). Classifying Cancer Stage with Open-Source Clinical Large Language Models. In 2024 IEEE International Conference on Healthcare Informatics (ICHI). (Accept)

[C04] Lucas, M. M., Wang, X., **Chang, C. H.**, & Yang, C. C. (2024). An ExplainableFair Framework for Predictive Modeling in Healthcare. In 2024 IEEE International Conference on Healthcare Informatics (ICHI). (Accept)

[C05] **Chang, C. H.**, Wang, L., & Yang, C. C. (2024). Constructing Cross-lingual Consumer Health Vocabulary with Word-Embedding from Comparable User Generated Content. In 2024 IEEE International Conference on Healthcare Informatics (ICHI). (Accept)

[C06] Lucas, M. M., **Chang, C. H.**, & Yang, C. C. (2023). Resampling for Mitigating Bias in Predictive Model for Substance Use Disorder Treatment Completion. In 2023 IEEE International Conference on Healthcare Informatics (pp. 709-711). IEEE.

[C07] **Chang, C. H.**, Chang, F. Y., & Hwang, S. Y. (2023). Prompting for Few-shot Adverse Drug Reaction Recognition from Online Review. In 2023 IEEE International Conference on Healthcare Informatics (ICHI) (pp. 168-175). IEEE.

[C08] Chang, C. M., **Chang, C. H.**, & Hwang, S. Y. (2020). Employing Word Mover's Distance for Cross-lingual Plagiarized Text Detection. Proceedings of the Association for Information Science and Technology, 57(1), e229.

[C09] **Chang, C. H.**, Wu, M. L., & Hwang, S. Y. (2019, July). An Approach to Cross-lingual Sentiment Lexicon Construction. In 2019 IEEE International Congress on Big Data (BigDataCongress) (pp. 129-131). IEEE.

[C10] **Chang, C. H.**, Hwang, S. Y., & Xui, T. H. (2018, July). Incorporating Word Embedding into Cross-lingual Topic Modeling. In 2018 IEEE International Congress on Big Data (BigData Congress) (pp. 17-24). IEEE.

PROFESSIONAL SERVICE

2023, 2024   **Reviewer,** IEEE Transactions on Knowledge and Data Engineering (TKDE)

2023, 2024   **Reviewer,** Knowledge and Information Systems (KAIS)

2023, 2024   **Reviewer**, Journal of Healthcare Informatics Research (JHIR)

2023   **Reviewer**, International Journal of Data Science and Analytics (JDSA)

AWARD AND HONOR

2021	**Exceptional Doctoral Dissertation,** National Sun Yat-Sen University
2021	**Honorary Member**, The Phi Tau Phi Scholastic Honor Society of the Republic of China
2020	**Fellowship**, TWD 900,000 from Graduate Students Study Abroad Program, Ministry of Science and Technology, Taiwan
2016-2020	**Industry-Academy Cooperation Scholarship**, TWD 1,200,000 for four years, Ministry of Education, Taiwan
2016-2018	**PhD Two-Year Scholarship**, TWD 684,000 for two years, National Sun Yat-sen University
2015-2016	**Five-Year BA-MA Program Scholarship**, TWD 120,000 for one year, National Sun Yat-sen University

SKILLS

Programming Languages: Python, R, Java, Bash, SQL, HTML/CSS/JS, LaTeX

OS/Software/Framework: Linux, Git, Docker, Spacy, LangChain, HuggingFace Transformers, PyTorch, Keras, MongoDB, Chroma DB, MySQL

Medical Language Processing: Universal Medical Language System (UMLS), sciSpacy

Language Skills: Mandarin (Native), English (Excellent)

REFERENCES

Christopher C. Yang, Ph.D. **Professor, Drexel University & Program Director, NSF**

College of Computing & Informatics   Relationship: Immediate Supervisor from 2023-2024

3675 Market St. 10th floor
Philadelphia, PA 19104

Christopher was my supervisor when I was a postdoctoral researcher in Drexel University from 2023 to 2024.

(+1) 215-895-1631

ccy24@drexel.edu

San-Yih Hwang, Ph.D. **Distinguished Professor, National Sun Yat-sen University**

Department of Information Management   Relationship: Doctoral Advisor from 2016 - 2021

No. 70 Lien-hai Road
Kaohsiung, Taiwan 804201

San-Yih was my advisor for my master thesis and Ph.D. dissertation.

(+886) 7-5252000 ext.4723

syhwang@mis.nsysu.edu.tw

Mary M. Lucas, MS, RN **PhD student, Drexel University**

College of Computing & Informatics   Relationship: Colleague from 2023-2024

3675 Market St. 10th floor
Philadelphia, PA 19104

Mary has over 10 years of clinical experience as a registered nurse. We have co-authored and published four conference papers in the last two years.

(+1) 215-581-8007

mml367@drexel.edu