Han Zhuang

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Research Interests

AI for Science and Data Science

Academic Position

Postdoctoral Research Associate   May. 2023 - Present

The Center for Complex Network Research, Northeastern University

PI: Albert-László Barabási

Education

Ph.D. in Information Science and Technology   Sept 2017 - June 2023
School of Information Studies,   Syracuse University
Advisor: Daniel E. Acuna

Master of Information Management   December 2015
College of Information Study, University of Maryland

Bachelor of Engineering in Software Engineering   July 2013
East China Normal University

Publications

Zhuang, H., Huang, TY, Acuna, DE. A computational analysis of accessibility, readability, and explainability of figures in open access publications. EPJ Data Science, 12(1), 5.

Schulz, R., Barnett, A., Bernard, R., Brown, …, **Zhuang, H.**, Bandrowski, A., & Weissgerber, T. L. (2022). Is the future of peer review automated?. BMC Research Notes, 15(1), 1-5.

Zhuang, H., Huang, TY, Acuna, DE. (2021) Graphical integrity issues in open access publications: Detection and patterns of proportional ink violations. PLOS Computational Biology 17(12): e1009650. https://doi.org/10.1371/journal.pcbi.1009650

Acuna, DE., Yi, Z., Liang, L., **Zhuang, H.**, Predicting the usage of scientific datasets based on article, author, institution, and journal bibliometrics, iConference 2022, Lecture Notes in Computer Science (one of five finalists for this year's *Best Short Research Paper Award*)

Xu, S., **Zhuang, H.**, Fu, X., Zhou, J., & Chen, M. (2017). GPU-based fluid motion estimation using energy constraint. Journal of Circuits, Systems and Computers, 26(02), 1750022.

Zhuang, H., & Quan, H. (2012, October). Fluid motion estimation based on energy constraint. In Asian Simulation Conference (pp. 308-318). Springer, Berlin, Heidelberg.

Manuscripts Under Review

Zhuang, H., & Acuna, DE., Incorporating costs and benefits to the evaluation of uncertain research findings: applications to cancer research funding.

Zhuang, H., & Acuna, DE. (2019). The effect of novelty on the future impact of scientific grants. arXiv preprint arXiv:1911.02712.

Open Source Software

Graphical integrity issue detection: https://github.com/sciosci/graph_check

Teaching Experience

Guest Lecturer for IST 700, Applied Deep Learning   2022 Spring
Teaching Assistant for IST 664, Natural Language Processing   2019 Spring
Guest Lecturer for IST 718, Big Data Analytics   2019 Spring

Honors and Awards

Travel Award from MetaScience Conference   May 2023
Syracuse University Dissertation Fellowship   2022-2023
Syracuse University iSchool Research Grant ($6,500)   2019, 2022
Best Short Research Paper Finalist at iConference   2022
Best Poster Award from MetaScience Symposium   September 2019

Service

Organizer, Computational Research Integrity Competition   2022

Program Committee Member, Computational Research Integrity Conference   2021

Reviewer for PLOS Computational Biology, Journal of the Association for Information Science and Technology, Humanities and Social Sciences Communications, and iConference 2023

Professional Experience

Database administrator/Technical Support   March.2016 – September.2016
LKA computer consultants   College Park, MD

- Process and maintain product datasets and provide technical support to clients

C# Developer Intern   May.2015 – August.2015
Cabin John Consulting Corp   Rockville, MD

- Configure and administrate SharePoint and ERP systems on Azure

Business Analyst Intern   July.2013 – August.2013
China Merchants Securities Corp   Beijing, China

- Assist senior business analyst in IPO document preparation

Research Assistant Intern   July.2012 – October.2012
Shanghai Advanced Research Institute, Chinese Academy of Sciences   Shanghai, China

- Implement n-body simulation in C and CUDA C for performance comparison