STUDENT WORKING GROUP

Newsletter

JUNE 2023

Student Opportunities

Journal of Biomedical Informatics Call for Submissions

Do you have something to submit to JBI's special issue on fairness and inclusion in biomedical informatics research? Submit your research papers, special communications, methodological reviews, and commentaries on how researchers can be more mindful and inclusive. More information can be found here.
Submit by October 1

AMIA Webinars

Check out upcoming free webinars that may be of interest to you. Unable to attend? Recordings are posted here so you can watch at your convenience!

Congratulations to the 2023 LEAD Fund Trainee Awardees!

- Derek Shu - Medical Student, University of Cincinnati
- Anindita Rajamani - Undergraduate Student, University of Minnesota Computer Science
- Alexander Chang - MD-PhD Student, University of Pittsburgh, Carnegie Melon University
- Lu He - PhD Candidate, University of California Irvine
- Brian Douthit - Post-doctoral Fellow, U.S. Department of Veterans Affairs
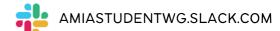- Navpreet Kamboj - PhD Candidate, University of Toronto

In this issue:

1 Student Spotlight: Sarvesh Soni

2 JAMIA Student Publications

Save the date:

AMIA Annual Symposium
November 11-15
New Orleans, LA

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STUDENT SPOTLIGHT

Sarvesh Soni

PhD graduate (2023)
D. Bradley McWilliams School of Biomedical Informatics
The University of Texas Health Science Center at Houston

1. **Please share your research interests.**
My research interests lie under the umbrella of clinical natural language processing. I am specifically excited about question answering (QA) from electronic health records (EHRs), which is also the main theme of my dissertation work.

2. **What are Clinical QA systems and why is it important?**
EHRs contain a wealth of useful patient information and are frequently used by clinicians to provide care. However, due to many usability issues associated with EHRs, accessing the required information is often complicated and time-consuming. A more organic way of interacting with the EHRs is by posing natural language questions and getting exact answers back from the records, or in other words, QA from EHRs.

3. **What are the main results and findings of your dissertation?**
My dissertation proposes three novel representative datasets for EHR QA: builds an end-to-end framework that goes from questions all the way to their exact answers in structured EHR data, implements methods to automatically generate paraphrases of clinical questions and improve EHR QA, and designs systems to automatically retrieve EHR text documents and underlying exact answer spans for a given information need.

4. **What are some of the skills or tools that you used or learned during your research?**
I harnessed the knowledge of computer science that I learned during my undergraduate and Masters to speed up several projects during the PhD. Specifically, the ability to implement or code solutions for informatics problems was crucial. I have learned much more about the nuances of natural language processing (NLP) while pursuing my PhD. This has happened through the course of multiple projects with several failures and successes.

5. **What advice would you give to junior Ph.D. students who are interested in Clinical QA systems?**
To understand the field, join the informatics community and expand your horizon. The AMIA Student Working Group is a good start. To advance clinical QA, understand the real world challenges of human-computer interactions in care provision and think creatively to solve the problems of accessing information from EHRs. Remember the "Fundamental Theorem" of Biomedical Informatics, which says that a human with information resources performs better than a human without.

PUBLICATION SPOTLIGHT

JAMIA Volume 30, Issue 4:
Articles with Student/Trainee Listed as First Author

Bing Xue - Washington University in St. Louis, MO, United States

Bing Xue, Neel Shah, Hanqing Yang, Thomas Kannampallil, Philip Richard Orrin Payne, Chenyang Lu, Ahmed Sameh Said, Multi-horizon predictive models for guiding extracorporeal resource allocation in critically ill COVID-19 patients, Journal of the American Medical Informatics Association, Volume 30, Issue 4, April 2023, Pages 656–667, https://doi.org/10.1093/jamia/ocac256

Brian D Tran - University of California, Irvine, CA, United States

Brian D Tran, Kareem Latif, Tera L Reynolds, Jihyun Park, Jennifer Elston Lafata, Ming Tai-Seale, Kai Zheng, "Mm-hm," "Uh-uh": are non-lexical conversational sounds deal breakers for the ambient clinical documentation technology?, Journal of the American Medical Informatics Association, Volume 30, Issue 4, April 2023, Pages 703–711, https://doi.org/10.1093/jamia/ocad001

Myron Anthony Godinho – University of New South Wales, Sydney, Australia

Myron Anthony Godinho, Siaw-Teng Liaw, Chipo Kanjo, Heimar F Marin, Henrique Martins, Yuri Quintana, Digital vaccine passports and digital health diplomacy: an online model WHO simulation, Journal of the American Medical Informatics Association, Volume 30, Issue 4, April 2023, Pages 712–717, https://doi.org/10.1093/jamia/ocac126

Kylie Dougherty, Columbia University, NY, United States

Kylie Dougherty, Mollie Hobensack, Suzanne Bakken, Scoping review of health information technology usability methods leveraged in Africa, Journal of the American Medical Informatics Association, Volume 30, Issue 4, April 2023, Pages 726–737, https://doi.org/10.1093/jamia/ocac236

Maryam Eslami Jahromi - Iran University of Medical Sciences, Tehran, Iran

Maryam Eslami Jahromi, Haleh Ayatollahi, Utilization of telehealth to manage the Covid-19 pandemic in low- and middle-income countries: a scoping review, Journal of the American Medical Informatics Association, Volume 30, Issue 4, April 2023, Pages 738–751, https://doi.org/10.1093/jamia/ocac250

Mitchell J Winkie – Harvard University, MA, United States

Mitchell J Winkie, Vinod E Nambudiri, A tale of two applications: lessons learned from national LMIC COVID applications, Journal of the American Medical Informatics Association, Volume 30, Issue 4, April 2023, Pages 781–786, https://doi.org/10.1093/jamia/ocac146

Please kindly note that the Student/Trainee status was identified based on available information via public domain.