

CURRICULUM VITAE

Andrew Joseph King, PhD, FAMIA

Assistant Professor of Critical Care Medicine and Biomedical Informatics
University of Pittsburgh School of Medicine

BIOGRAPHICAL INFORMATION

Business Address: University of Pittsburgh
Department of Critical Care Medicine
3550 Terrace Street, Suite 600
Pittsburgh, PA 15261

E-mail: andrew.king@pitt.edu

EDUCATION AND TRAINING

Undergraduate:

2009 – 2013 University of Pittsburgh School of Arts and Sciences, Pittsburgh, PA BS, 2013 Bioinformatics (Chemistry minor)

Graduate:

2013 – 2015 University of Pittsburgh School of Medicine, Pittsburgh, PA MS, 2015 Biomedical Informatics
2015 – 2018 University of Pittsburgh School of Medicine, Pittsburgh, PA PhD, 2018 Biomedical Informatics

Postgraduate:

2018 – 2021 University of Pittsburgh School of Medicine, Pittsburgh, PA Postdoc Critical Care Informatics

APPOINTMENTS AND POSITIONS

Academic Appointments:

2013 – 2016 National Library of Medicine Pre-doctoral Fellow, University of Pittsburgh School of Medicine
2018 – 2020 National Library of Medicine Post-doctoral Fellow, University of Pittsburgh School of Medicine
2022 – Assistant Professor, Critical Care Medicine, University of Pittsburgh School of Medicine
2025 – Assistant Professor, Biomedical Informatics, University of Pittsburgh School of Medicine

Non-academic Appointments:

- 2015 Internship, Center for Health Informatics for the Underserved, Malawi, Africa
- 2015 Health Innovators Fellow, Jewish Healthcare Foundation, Pittsburgh, PA
- 2017 Health Innovators Fellow, Jewish Healthcare Foundation, Pittsburgh, PA
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MEMBERSHIP IN PROFESSIONAL AND SCIENTIFIC SOCIETIES

- American Medical Informatics Association (AMIA) 2013 –
- Association of Computational Linguists 2019 –
- Association for the Advancement of Artificial Intelligence 2019 –
- American Thoracic Society 2022 –
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HONORS

- Best Student Poster, University of Pittsburgh Biomedical Informatics Training Program Retreat 2015
- Martin Epstein Award and First Place in the Student Paper Competition, AMIA Annual Symposium 2015
- Best Student Paper, University of Pittsburgh Biomedical Informatics Training Program Retreat 2016 & 2017
- First Place in the Student Paper Competition, AMIA Joint Summits 2017
- Nominated for the Distinguished Paper Award, AMIA Annual Symposium 2018
- Best Focus Session Presentation, National Library of Medicine Informatics Training Conference 2019
- Fellow of AMIA (FAMIA) 2024
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PUBLICATIONS

Peer-reviewed original research papers:

1. **King AJ**, Cooper GF, Hochheiser H, Clermont G, Visweswaran S. Development and preliminary evaluation of a prototype of a learning electronic medical record system. *AMIA Annu Symp Proc.* 2015 Nov 5;2015:1967-75. PMID: 26958296; PMC4765593 [**Best Student Paper**]
2. **King AJ**, Hochheiser H, Visweswaran S, Clermont G, Cooper GF. Eye-tracking for clinical decision support: A method to capture automatically what physicians are viewing in the EMR. *AMIA Jt Summits Transl Sci Proc.* 2017 Jul 26;2017:512-521. PMID: 28815151; PMC5543363 [**Best Student Paper**]
3. **King AJ**, Cooper GF, Hochheiser H, Clermont G, Hauskrecht M, Visweswaran S. Using machine learning to predict the information seeking behavior of clinicians using an electronic medical record system. *AMIA Annu Symp Proc.* 2018 Dec 5;2018:673-682. PMID: 30815109; PMC6371238 [**Distinguished Paper Nomination**]
4. **King AJ**, Cooper GF, Clermont G, Hochheiser H, Hauskrecht M, Sittig DF, Visweswaran S. Using Machine Learning to Selectively Highlight Patient Information. *J Biomed Inform.* 2019 Dec;100:103327. PMID: 31676461; PMC6932869; 10.1016/j.jbi.2019.103327
5. **King AJ**, Cooper GF, Clermont G, Hochheiser H, Hauskrecht M, Sittig DF, Visweswaran S. Leveraging Eye Tracking to Prioritize Relevant Medical Record Data: Comparative Machine Learning Study. *J Med Internet Res.* 2020 Apr 2;22(4):e15876. PMID: 32238342; PMC7163414; 10.2196/15876
6. Tajgardoon M, Cooper GF, **King AJ**, Clermont G, Hochheiser H, Hauskrecht M, Sittig DF, Visweswaran S. Modeling Physician Variability to Prioritize Relevant Medical Record Information. *JAMIA Open.* 2020 Dec 31;3(4):602-610. PMID: 33623894; PMC7886572; 10.1093/jamiaopen/ooaa058
7. The UPMC REMAP-COVID Group, on behalf of the REMAP-CAP Investigators: Huang DT, McVerry BJ, Horvat C, Adams PW, Berry S, Buxton M, Clermont G, Garrard W, Girard TD, Haidar G, **King AJ**, Linstrum K, Malakouti S, Mayr FB, McCreary EK, Montgomery SK, Seymour CW, Weissman A, Angus DC. Implementation of the Randomized Embedded Multifactorial Adaptive Platform for COVID-19 (REMAP-COVID) trial in a US health system—lessons learned and recommendations. *Trials.* 2021 Jan 28;22(1):100. PMID: 33509275; PMC7841377; 10.1186/s13063-020-04997-6
8. **King AJ**, Calzoni L, Tajgardoon M, Cooper G, Clermont G, Hochheiser H, Visweswaran S. A simple electronic medical record system designed for research. *JAMIA Open.* 2021 Jul 31;4(3):ooab040. PMID: 34345801; PMC8325484; 10.1093/jamiaopen/ooab040
9. Arabi YM, Gordon AC, Derde LPG, Nichol AD, Murthy S, Beidh FA, Annane D, Swaidan LA, Beane A, Beasley R, Berry LR, Bhimani Z, Bonten MJM, Bradbury CA, Brunkhorst FM, Buxton M, Buzgau A, Cheng A, Jong MD, Detry MA, Duffy EJ, Estcourt LJ, Fitzgerald M, Fowler R, Girard TD, Goligher EC, Goossens H, Haniffa R, Higgins AM, Hills TE, Horvat CM, Huang DT, **King AJ**, Lamontagne F, Lawler PR, Lewis R, Linstrum K, Litton E, Lorenzi E, Malakouti S, McAuley DF, McGlothlin A, McGuinness S, McVerry BJ, Montgomery SK, Morpeth SC, Mouncey

- PR, Orr K, Parke R, Parker JC, et al. Lopinavir-ritonavir and hydroxychloroquine for critically ill patients with COVID-19: REMAP-CAP randomized control trial. *Intensive Care Med.* 2021 Aug; 47(8):867-886. PMID: 34251506; PMC8274471; 10.1007/s00134-021-06448-5
10. Visweswaran S, **King AJ**, Tajgardoona M, Calzoni L, Clermont G, Hochheiser H, Cooper GF. Evaluation of eye tracking for a decision support application. *JAMIA Open.* 2021 Aug 2;4(3):ooab059. PMID: 34350394; PMC8327376; 10.1093/jamiaopen/ooab059
 11. REMAP-CAP Investigators, et al. Therapeutic Anticoagulation with heparin in critically ill patients with Covid-19. *N Engl J Med.* 2021; 385(9):777-789. PMID: 34351722; PMC8362592; 10.1056/NEJMoa2103417
 12. ATTACC Investigators, et al. Therapeutic anticoagulation with heparin in noncritically ill patients with Covid-19. *N Engl J Med.* 2021; 385(9):790-802. PMID: 34351721; PMC8362594; 10.1056/NEJMoa2105911
 13. Brant EB, Kennedy JN, **King AJ**, Gerstley LD, Mishra P, Schlessinger D, Shalaby J, Escobar GJ, Angus DC, Seymour CW, Liu VX. Developing a shared sepsis data infrastructure: a systematic review and concept map to FHIR. *Npj Digit Med.* 2022;5:44. PMID: 35379946; PMC8979949; 10.1038/s41746-022-00580-2
 14. Griffin AC, He L, Sunjaya AP, **King AJ**, Khan Z, Nwadiugwu M, Douthit B, Subbian V, Nguyen V, Braunstein M, Jaffe C, Schleyer T. Clinical, Technical, and Implementation Characteristics of Real-World Health Applications Using FHIR. *JAMIA Open.* 2022 Oct 12;5(4):ooac077. PMID: 36247086; PMC9555876; 10.1093/jamiaopen/ooac077
 15. **King AJ**, Kahn JM, Brant EB, Cooper GF, Mowery DL. Initial development of an automated platform for assessing trainee performance on case presentations. *ATS Sch.* 2022;3(4):548-560. PMID: 36726701; PMC9886197; 10.34197/ats-scholar.2022-0010OC
 16. **King AJ**, Potter K, Seaman JB, Chiyka EA, Hileman BA, Cooper GF, Mowery DL, Angus DC, Kahn JM. Measuring performance on the ABCDEF Bundle during interprofessional rounds: interrater reliability of a nurse-based assessment tool. *Am J Crit Care.* 2023 Mar 1;32(2):92-99. PMID: 36854912; 10.4037/ajcc2023755
 17. **King AJ**, Angus DC, Cooper GF, Mowery DL, Seaman JB, Potter KM, Bukowski LA, Al-Khafaji A, Gunn, SR, Kahn JM. A voice-based digital assistant for intelligent prompting of evidence-based practices during ICU rounds. *J Biomed Inform.* 2023 Oct;146:104483. PMID: 37657712; PMC10591951; 10.1016/j.jbi.2023.104483
 18. **King AJ**, Tang L, Davis BS, Preum SM, Bukowski LA, Zimmerman J, Kahn JM. Machine learning-based prediction of low-value care for hospitalized patients. *Intell Based Med.* 2023;8:100115. PMID: 38130744; PMC10735238; 10.1016/j.ibmed.2023.100115
 19. Yildirim N, Zlotnikov Z, Sayar D, Kahn JM, Bukowski LA, Amin SS, Riman KA, Davis BS, Minturn JS, **King AJ**, Ricketts D, Tang L, Sivaraman V, Perer A, Preum SM, McCann J, Zimmerman J. Sketching AI concepts with capabilities and examples: AI innovation in the intensive care unit. *Computer Human Interaction Proc.* 2024. 10.1145/3613904.3641896

20. **King AJ**, Higgins L, Au C, Malakouti S, Music E, Kalchthaler K, Clermont G, Garrard W, Huang DT, McVerry BJ, Seymour CW, Linstrum K, McNamara A, Green C, Loar I, Roberts T, Marroquin O, Angus DC, Horvat CM. Automatic population of the Case Report Forms for an international multifactorial adaptive platform trial amid the COVID-19 pandemic. *AMIA Jt Summits Transl Sci Proc.* 2024; 2024:276-284. PMID: 38827056; PMC11141839; 10.1101/2023.09.19.23295797
21. **King AJ**, Horvat CM, Schlessinger D, Hochheiser H, Bui KV, Kennedy JN, Brant E, Shalaby J, Angus DC, Liu V, Seymour CW. A FHIR-powered Python Implementation of the SENECA Algorithm for Sepsis Subtyping. *Appl Clin Inform.* 2025;16(05):1588-1594. PMID: 41202858; PMC12594559; 10.1055/a-2720-5448

Reviews, editorials, invited papers, and book chapters:

22. Uppal R, Mandava G, Romagnoli KM, **King AJ**, Draper A, Handen A, Fisher A, Becich MJ, Dutta Moscato J. How can we improve Science, Technology, Engineering, and Math education to encourage careers in biomedical and pathology informatics? *J Pathol Inform.* 2016 Jan 29;7:2. PMID: 26955500; PMC4763503; 10.4103/2153-3539.175375
23. **King AJ**, Fisher A, Becich M, Boone D. Computer Science, Biology, and Biomedical Informatics Academy: outcomes from five years of emerging high school students into informatics research. *J Pathol Inform.* 2017 Feb 28;8:2. PMID: 28400991; PMC5359992; 10.4103/2153-3539.201110
24. Visweswaran S, **King AJ**, Cooper GF. "Integration of AI for Clinical Decision Support." In: Cohen TA, Patel VL, Shortliffe EH, editors. *Cognitive Informatics in Health and Biomedicine: Intelligent Systems in Medicine and Health: The Role of AI.* Springer. 2022;285–308. 10.1007/978-3-031-09108-7_10
25. Horvat CM, **King AJ**, Huang D. Designing and Implementing 'Living and Breathing' Clinical Trials – An Overview and Lessons Learned from the COVID-19 Pandemic. *Crit Care Clin.* 2023 Oct;39(4):717-732. PMID: 37704336; PMC9935272; 10.1016/j.ccc.2023.02.002
26. **King AJ**, Kahn JM. The role of data science in closing the implementation gap. *Crit Care Clin.* 2023 Oct;39(4):701-716. PMID: 37704335; 10.1016/j.ccc.2023.03.005

Conference abstracts and other publications:

27. **King AJ**. *The Development and Evaluation of a Learning Electronic Medical Record System.* Doctoral Dissertation, University of Pittsburgh. 2018. Available from: <http://d-scholarship.pitt.edu/35223/>
28. **King AJ**, Visweswaran S, Hochheiser H, Clermont G, Cooper GF. Insights from a dissertation on the development of a Learning Electronic Medical Record System: data-driven, context-aware learning. *AMIA Annu Symp Proc.* 2020 Mar 4;2019.
29. **King AJ**, Malakouti S, Music E, Kalchthaler K, Holton J, Quinn K, Clermont G, Marroquin O, Angus DC, Horvat C. Computable case reporting for multicenter clinical trials and registries. In: Poster abstracts from fourth annual public meeting: Mobilizing computable biomedical knowledge (MCBK 2021). *Learn Health Sys.* 2022;6:e10300.

30. **King AJ**, Mowery DL, Cooper GF, Kahn JM. Natural Language Processing to Computationally Generate Feedback on the Quality of Trainees' Oral Case Presentations in the Intensive Care Unit. *Am J Respir Crit Care Med.* 2022;205:A2449.
31. Griffin A, He L, Sunjaya A, **King AJ**, Khan Z, Douthit B, Nwadiugwu M, Subbian V, Braunstein M, Ngyen V, Jaffe C, Schleyer T. Major characteristics of Fast Healthcare Interoperability Resources (FHIR) apps: A pilot study. *AMIA Annu Symp Proc.* 2022.
32. **King AJ**, Kahn JM. Reply to Discourage Paint-By-Numbers Presentations. *ATS Sch.* 2023 Mar 30;4(1):100-101. PMID: 37089685; PMC10117397; 10.34197/ats-scholar.2022-0140LE
33. Seaman B, Potter KM, Plexico C, Murphy C, Kahn JM, **King AJ**. Understanding the "Family" in the ABCDEF Bundle: Analysis of interprofessional rounding discussions about family engagement. *Am J Respir Crit Care Med.* 2024;209:A3112.
34. Potter KM, Phan E, Seaman JB, Boehm L, Girard TD, **King AJ**, Kahn JM. Evaluating the Quality of Delirium Discussions During Interprofessional Rounds in the Intensive Care Unit. *American Delirium Society Conference 2024.*
35. Seaman JB, Zhu J, Shamsizadeh M, Zhang Y, **King AJ**. Disparities in Conversations About Family Engagement During Intensive Care Unit (ICU) Team Rounds. *Am J Respir Crit Care Med.* 2025 May 16;211(Abstracts):A2989.
36. Mintrun J, **King AJ**, Davis B, Tang L, Bukowski L, Zimmerman J, Kahn J. A Machine Learning Model to Predict the Use of Evidence-Based Practice in the Intensive Care Unit. *AMIA Informatics Summit.* 2025 Mar 10-13.
37. Houghtaling J, Pollard T, Talapova P, Kriley M, Kwong M, **King AJ**, Gow B. Waveform Extension. *Bridge2AI All Hands Meeting and Open House.* 2025 May 20.
38. Houghtaling J, Talapova P, Gow B, Kwong M, **King AJ**, Moody B, Kriley M, Pollard T, Williams AE. OMOP Waveform Extension: A Schema for Integrating Physiological Signals and Derived Features into the OMOP CDM. *2025 OHDSI Global Symposium.* 2025 Oct 7.

Publications as a named collaborator:

39. Angus DC, et al. Effect of Hydrocortisone on Mortality and Organ Support in Patients With Severe COVID-19: The REMAP-CAP COVID-19 Corticosteroid Domain Randomized Clinical Trial. *JAMA.* 2020 Oct 6;324(13):1317-1329. PMID: 32876697; PMC7489418; 10.1001/jama.2020.17022
40. REMAP-CAP Investigators, et al. Interleukin-6 receptor antagonists in critically ill patients with Covid-19. *N Engl J Med.* 2021 Apr 22;384(16):1491-1502. PMID: 33631065; PMC7953461; 10.1056/NEJMoa2100433
41. REMAP-CAP Writing Committee for the REMAP-CAP Investigators, et al. Effect of Convalescent Plasma on Organ Support-Free Days in Critically Ill Patients With COVID-19: A Randomized Clinical Trial. *JAMA.* 2021 Nov 2;326(17):1690-1702. PMID: 34606578; PMC8491132; 10.1001/jama.2021.18178

42. REMAP-CAP Writing Committee for the REMAP-CAP Investigators, et al. Effect of Antiplatelet Therapy on Survival and Organ Support-Free Days in Critically Ill Patients With COVID-19: A Randomized Clinical Trial. *JAMA*. 2022 Apr 5;327(13):1247-1259. PMID: 35315874; PMC8941448; 10.1001/jama.2022.2910
43. Writing Committee for the REMAP-CAP Investigators, et al. Long-term (180-Day) Outcomes in Critically Ill Patients With COVID-19 in the REMAP-CAP Randomized Clinical Trial. *JAMA*. 2023;329(1):39-51. PMID: 36525245; PMC9857594; 10.1001/jama.2022.23257
44. Writing Committee for the REMAP-CAP Investigators, et al. Effect of Angiotensin-Converting Enzyme Inhibitor and Angiotensin Receptor Blocker Initiation on Organ Support-Free Days in Patients Hospitalized With COVID-19: A Randomized Clinical Trial. *JAMA*. 2023 Apr 11;329(14): 1183-1196. PMID: 37039790; PMC10326520; 10.1001/jama.2023.4480
45. REMAP-CAP Investigators, et al. Simvastatin in Critically Ill Patients with Covid-19. *Engl J Med*. 2023 Dec 21;389(25):2341-2354. PMID: 37888913; PMC10755839; 10.1056/NEJMoa2309995
46. LOVIT-COVID Investigators, on behalf of the Canadian Critical Care Trials Group, and the REMAP-CAP Investigators. Intravenous vitamin C for patients hospitalized with COVID-19: Two harmonized randomized clinical trials. *JAMA*. 2023;330(18):1745-1759. PMID: 37877585; PMC10600726; 10.1001/jama.2023.21407

Under review:

47. **King AJ**, Davis BS, Connell KA, Bukowski LA, Soni K, Graf S, Kahn JM. An Electronic Phenotype Series for Measuring Adherence to the Wake Up and Breathe Protocol in Mechanically Ventilated ICU Patients: Development and Validation Study. [preprint available at doi: 10.2196/preprints.79780]
48. Kedia N, McConnell RJ, Clermont G, **King AJ**. Evaluating Open-Source Large Language Models for Annotating Social and Behavioral Determinants of Health in Clinical Text.
49. Poluch M, Clermont G, Shah FA, Talisa V, **King AJ**. Using Large Language Models to Interpret Radiology Reports for Identification of Pneumonia on Imaging. [abstract]
50. Sivaraman V, Mason EP, Li ME, Tong J, **King AJ**, Kahn JM, Perer A. Intelligent Reasoning Cues: A Framework and Case Study of the Roles of AI Information in Complex Decisions.
51. Minturn JS, Davis BS, Tang L, **King AJ**, Zimmerman J, Girard T, Kahn JM. Machine Learning for Prediction of Successful Extubation of Mechanically Ventilated Patients.
52. **King AJ**, Kahn JM, Kennedy J, Mathie T, Clermont G, Suresh S, Marroquin OC, Angus DC, Horvat CM. A Practical Guide to Developing Critical Care Data Infrastructure to Support a Learning Health System.

TEACHING

Teaching assistant for graduate courses:

- 2014 Symbolic Methods in Artificial Intelligence
2015 & 2016 Human Computer Interaction and Evaluation Methods
2017 Foundations of Translational Bioinformatics

Guest lectures:

- 08/2015 &
11/2016 My path to graduate school and the development of a Learning Electronic Medical Record. Guest lecture for University of Pittsburgh BIOSCI 1540 Computational Biology. Pittsburgh, PA.
- 04/2018 Reimagining Electronic Medical Records as Context Aware Information Resources. Guest lecture for Carnegie Mellon University 67-308 Innovation Studio: Healthcare Information Systems. Pittsburgh, PA.
- 06/2018 &
06/2019 Evaluation Metrics. Guest lecture for University of Pittsburgh CoSBBI and iBRIC summer research programs. Pittsburgh, PA.
- 06/2022 Interactive Keynote: Data. Talk presented at: NIH Office of Data Science Strategy, Coding it Forward Civic Digital Fellows Welcome Day. Online. [Invited Keynote Lecture]
- 07/2024 Informatics in Emergency Medicine. Guest lecture for University of Pittsburgh CoSBBI and iBRIC summer research programs. Pittsburgh, PA.
- 11/2024 Ambient Systems. Guest lecture for University of Pennsylvania course on Natural Language Processing and Machine Learning. Online.
- 11/2024 An Introduction to Clinical Trial Design. Guest lecture for Carnegie Mellon University course on Artificial Intelligence in Healthcare. Pittsburgh, PA.
- 11/2025 Ambient Listening in the Clinic: AI-Driven Feedback, Education, and Clinical Interventions. Guest lecture for University of Pennsylvania course on Natural Language Processing and Machine Learning. Online.
- 11/2025 Fundamentals of Artificial Intelligence and Machine Learning. Lecture for Critical Care Medicine Fellows at University of Pittsburgh. Pittsburgh, PA.

Mentorship and Supervision of Trainees and Students:

- 2015 Mentor of Arushi Bandi [high school scholar]. Using Natural Language Processing to improve the prediction of relevant Data in Electronic Medical Records. Presented at University of Pittsburgh Cancer Institute Academy Annual Retreat.
- 2016 Mentor of Anibal Tornes Blanco [high school scholar]. Evaluating multiple classifier methods for patient specific result prediction in Learning Electronic Medical Records (LEMR). Presented at Duquesne University Summer Undergraduate Research Symposium.
- 2018 Mentor of Adelle Fernando [high school scholar]. Speech recognition and natural

	language processing of ICU rounding presentations from a simulation study. Presented at University of Pittsburgh Cancer Institute Academy Annual Retreat.
2018	Mentor of Samuel Samayamuthu [undergraduate scholar]. The sequence of viewing patient data on an electronic medical record system from a simulation study.
2019	Mentor of Pablo Coen-Pirani [undergraduate scholar]. Developing an Electronic Health Record App using the FHIR Data Standard.
2022	Mentor of Elizabeth Bair [high school scholar]. Generating Summaries of Oxygen Therapy Decisions from Transcribed Oral Presentations of ICU Patients. Presented at University of Pittsburgh Cancer Institute Academy Annual Retreat.
2025	Co-mentor of Nikita Kedia [medical student]. Evaluating Open-Source Large Language Models for Annotating Social and Behavioral Determinants of Health in Clinical Text. Full manuscript is currently under review.
2025	Co-mentor of Maria Poluch [internal medicine resident]. Using Large Language Models to Interpret Radiology Reports for Identification of Pneumonia on Imaging. Abstract currently under review at ATS International Conference.

RESEARCH

Past & current grant support:

Years	Grant Number and Title	Role and Effort	Source and Total costs
07/2019 – 06/2021	Loan Repayment Program	Principal Investigator (PI)	Agency for Healthcare Research and Quality, n/a
08/2020 – 06/2022	A Voice-Interactive Virtual Assistant	PI, 75% effort	Pittsburgh Health Data Alliance, \$300,000
07/2022 – 03/2026	R35HL144804; Organizational strategies for improving evidence-uptake in intensive care	Co-investigator	NIH NHLBI
09/2023 – 12/2026	OT2OD032701; Bridge2AI: Patient-Focused Collaborative Hospital Repository Uniting Standards (CHoRUS) for Equitable AI	Co-investigator	NIH
01/2026 – 12/2029	AI-Driven, Context-Aware, Precision Assessment of Individual and Team-Based Clinical Reasoning	Sub-award PI, 20% effort	[Under embargo]

Pending & submitted grants

Submission Date	Agency	Type	Status	Role	Title

11/2022	NIH NHLBI	K01	Unfunded	PI	Promoting evidence-based practice in the ICU via an adaptive electronic rounding checklist
08/2025	NIH	DP2	Under consideration	PI	Large Language Intensivist

Presentations and invited lectures:

- 06/2015 Development and Evaluation of a Prototype of a Learning Electronic Medical Record System. Poster presented at: National Library of Medicine Informatics Training Conference. Bethesda, MD
- 08/2015 Training a Learning Electronic Medical Record. Poster presented at: DBMI Annual Training Program Retreat. Pittsburgh, PA.
- 11/2015 Understanding Blood Transfusion Workflow in a Malawi Central Hospital and Recommendations for Implementing a Laboratory Information Management System. Poster presented at: BGSA Annual Symposium. Pittsburgh, PA.
- 08/2016 Using a Low-Cost Eye Tracking Device to Automatically Label Information Usage Patterns. Poster presented at: DBMI Annual Training Program Retreat. Pittsburgh, PA. [Best student poster]
- 08/2015 & 11/2016 My path to graduate school and the development of a Learning Electronic Medical Record. Guest lecture for University of Pittsburgh BIOSCI 1540 Computational Biology
- 02/2017 Rethinking the EMR. Presented at University of Pittsburgh Department of Critical Care Medicine CRISMA Weekly Conference.
- 05/2017 Learning Cycle of a Learning Electronic Medical Record. Poster presented at: University of Michigan—University of Pittsburgh Collaborative Scholarship Meeting. Cleveland, OH.
- 06/2019 Using Machine Learning to Highlight Relevant Patient Data in a Learning EMR. Talk presented at: National Library of Medicine Informatics Training Conference. Indianapolis, IN. [Best focus session presentation]
- 01/2020 A Guide to FHIR Starting. Presented at University of Pittsburgh Department of Critical Care Medicine Biostatistics and Data Management Core Speaker Series. Pittsburgh, PA.
- 09/2020 The Development and Evaluation of a Learning Electronic Medical Record System. Talk presented at Wake Forest Center for Biomedical Informatics. Online.
- 07/2021 Computable Case Reporting for Multicenter Clinical Trials and Registries. Talk presented at Annual Meeting of Mobilizing Computable Biomedical Knowledge Community. Online.
- 03/2023 A Voice-based Digital Assistant for Intelligent Prompting of Evidence-based Practices. Presented at University of Pittsburgh Department of Critical Care Medicine CRISMA Weekly Conference. Pittsburgh, PA.

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| 10/2024 | Transforming Intensive Care with Data-Driven Innovation. Presented at University of Pennsylvania Biomedical Data Science Seminar Series. Philadelphia, PA. |
| 10/2024 | The Intensive Care Unit as Told by Data. Presented at University of Pittsburgh Department of Biomedical Informatics Colloquium. Pittsburgh, PA. |
| 03/2025 | An Update on Department Data and Infrastructure. Presented at University of Pittsburgh Department of Critical Care Medicine CRISMA Weekly Conference. Pittsburgh, PA. |
| 04/2025 | ICU Data in an AI World. Presented at University of Pittsburgh Department of Critical Care Medicine CRISMA Weekly Conference. Pittsburgh, PA. |
| 11/2025 | Ambient Listening in the Clinic: AI-Driven Feedback, Education, and Clinical Interventions. Presented at University of Pittsburgh Department of Critical Care Medicine CRISMA Weekly Conference. Pittsburgh, PA. |

Panels, workshops, and moderation:

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| 11/2024 | Moderated a panel discussion entitled “ICU and Critical Care - Beeped and Blurred” at the AMIA Annual Symposium 2024. San Francisco, CA. |
| 03/2026 | Kyper CM, Fazio N, King AJ , Horvat CM. Revolutionizing Health Care: The Promise and Challenges of Artificial Intelligence. Panel at 47 th National Conference on Pediatric Healthcare. 2026 Mar 18-21. Pittsburgh, PA. |

SERVICE**University service:**

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| 2015 | Co-Director, Computer Science, Biology and Biomedical Informatics Site of the UPMC Hillman Summer Academy |
| 2024 – | Associate Director of Research Informatics, Department of Critical Care Medicine, University of Pittsburgh School of Medicine |

National service:

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| 2019 – 2021 | Vice Chair, Intensive Care Informatics Working Group, American Medical Informatics Association |
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OPEN-SOURCE SOFTWARE

SimpleEMRSystem: a rapidly deployable and readily customizable electronic medical record (EMR) user interface for supporting laboratory-based research studies of EMR design and usability.

EyeBrowserPy: eye (gaze) tracking in your browser, plus area of interest analysis code.

PatientPy: patient state construction from clinical databases for machine learning.

SepsisOnFHIR: a Python library for interacting with FHIR servers, retrieving patient data, and computing Seneca phenotypes for sepsis research.

MEDIA

News, newspapers, and blogs:

- 05/07/2012 Pittsburgh's Action 4 News. Pitt student to bike 3,900 miles on Journey of Hope. Available from: <https://www.wtae.com/amp/article/pitt-student-to-bike-3-900-miles-on-journey-of-hope/7456485>
- 07/18/2012 Barney G. King of the road: Pitt student bikes cross-country for charity. The Pitt News. Available from: <https://pittnews.com/article/14036/archives/king-of-the-road-pitt-student-bikes-cross-country-for-charity/>
- 08/01/2018 Department of Biomedical Informatics. "Pitt DBMI Doctoral Student Andy King Uses Eyetracking to Study Navigation of the Electronic Medical Record." Informatics Today. Autumn 2018. Available from: <https://www.dbmi.pitt.edu/node/54159>
- 11/25/2020 Pittsburgh health data alliance. Project Spotlight: Aviva. Pittsburgh Health Data Alliance Blog. Weblog. [Online] Available from: <https://healthdataalliance.com/blog/project-spotlight-aviva/>
- 12/01/2021 Pittsburgh health data alliance. Project Spotlight: Aviva (update). Pittsburgh Health Data Alliance Blog. Weblog. [Online] Available from: <https://healthdataalliance.com/blog/project-spotlight-aviva-update/>
- 03/22/2022 Pittsburgh health data alliance. From Concept to Clinic: How the PHDA Makes Research a Reality. Pittsburgh Health Data Alliance Blog. Weblog. [Online] Available from: <https://healthdataalliance.com/blog/concept-clinic-phda-makes-research-reality/>
- 03/28/2023 Daily Nurse. Checklist Prompters Support ICU Round. [Online] Available from: <https://dailynurse.com/checklist-prompters-support-icu-rounds/>

Podcast appearances:

- 01/05/2023 Initial Development of an Automated Platform for Assessing Trainee Performance on Case Presentations. Scholarly. Available from: <https://scholarly.transistor.fm/episodes/initial-development-of-an-automated-platform-for-assessing-trainee-performance-on-case-presentations>

Social media:

Email ajk77@pitt.edu
X/Twitter @ajk77onX
Website <https://ajk77.github.io/>
GitHub <https://github.com/ajk77>
ORCID <https://orcid.org/0000-0002-9809-0563>
LinkedIn <https://www.linkedin.com/in/ajk77/>
Google Scholar <https://scholar.google.com/citations?hl=en&user=uR9T014AAAAJ>