

SAPTARSHI PURKAYASTHA, Ph.D.
Curriculum Vitae

School of Informatics and Computing (SOIC),
Indiana University - Purdue University Indianapolis (IUPUI)
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EDUCATION

Norwegian University of Science & Technology, Trondheim, Norway	Ph.D., Information Systems	04/2015
University of Mumbai, Mumbai, India	Master of Science, Computer Science	06/2008
University of Mumbai, Mumbai, India	Bachelor of Science, Information Technology	06/2006

APPOINTMENTS (* signifies in rank)

ACADEMIC

* Indiana University-Purdue University Indianapolis	Assistant Professor	08/2016 - Present
* Dept. of BioHealth Informatics, School of Informatics and Computing, IUPUI	Director of Undergraduate Research and Teaching	09/2018 - Present
* STEM Education Innovation and Research Institute, IUPUI	Faculty Associate	06/2018 - Present
* Regenstrief Institute	Affiliate Scientist	04/2018 - Present
School of Informatics and Computing, IUPUI	Visiting Assistant Professor	08/2014 - 07/2016
Norwegian University of Science and Technology	Research Fellow	08/2010 - 06/2014
University of Oslo	Lecturer	08/2013 - 12/2013
SS & LS Patkar Varde College, University of Mumbai	Visiting Lecturer	01/2007 - 12/2009

NON-ACADEMIC

SEARO, New Delhi, World Health Organization	Health Information Systems Consultant	04/2013 - 11/2013
Raxa Inc.	Technology Advisor	04/2012 - 07/2012
Society for Health information Systems Programme, New Delhi, India	Director of Research & Development	02/2009 - 08/2010

PROFESSIONAL ORGANIZATION MEMBERSHIPS

American Medical Informatics Association	2015 - Present
District Health Information System, North American Expert	2014 - Present
Asia eHealth Information Network (AeHIN)	2014 - Present

PROFESSIONAL DEVELOPMENT

<u>Course/Workshop Title</u>	<u>Provider</u>	<u>Date</u>
ACUE Course in Effective Teaching Practices	Association of College and University Educators	2020-2021
Navigating Promotion and Tenure: The Case for Underrepresented Faculty	IUPUI Academic Affairs	11/17/2020
Navigating the Department of Defense	Conafay Group & Cornerstone Government Affairs	11/12/2020
Promotion or Tenure on Balanced Case for Tenure Track Faculty	IUPUI Academic Affairs	09/15/2020
Dossier Prep Workshops	IUPUI Academic Affairs	09/08/2020
Logic Model Workshop	SEIRI IUPUI	08/06/2020
Pregnancy and Maternal Conditions That Increase Risk of Morbidity and Mortality Workshop	Eunice Kennedy Shriver National Institute of Child Health and Human Development, National Institutes of Health	05/19/2020
Promotion or Tenure on Balanced Case Workshop	IUPUI Academic Affairs	03/10/2020
Student Mental Health and Well-Being	William M. Plater Institute on the Future of Learning	02/07/2020
SOIC Dossier Workshop	IUPUI Academic Affairs	12/03/2019
Advanced Grant seeking & NSF CAREER	Hanover Research	01/18/2019
Early Career Teaching Academy	IUPUI Center for Teaching and Learning	2018-2019
Writing Winning Grant Proposals	Grant Writers' Seminars and Workshops	08/28/2018
Health Information Technology Workshop	World Health Organization, Colombia	06/14-21/2018

TEACHING (FA = Fall, SU = Summer, SP = Spring)**UNDERGRADUATE COURSES:**

<u>Course Number</u>	<u>Course Title</u>	<u>Format</u>	<u>Role</u>	<u>Semester</u>
INFO I491	Capstone Project Internship	Internship	Supervisor	SP '18

HIM M200	Database Design for Health Information Management	Lecture	Instructor	SU '15, FA '15
INFO I308	Information Representation	Lecture	Instructor	FA '15
INFO I400	Topics – Mobile Development for Health	Lecture	Instructor	SU '15

GRADUATE COURSES:

INFO I501	Intro to Informatics	Lecture	Instructor	SP '15, '16, '20, '21; FA '15, '16, '17, '18, '20, '21
INFO B585	Biomedical Analytics	Lecture	Instructor	FA '16, '18, '19, '20, '21
INFO B690	Topics - Analytics of Biomedical Data	Lecture	Instructor	FA '14
INFO B581	Health Info Standards and Terminology	Lecture	Instructor	SP '17, '18, '19
INFO B513	EHR Systems	Lecture	Instructor	SP '16, '18, '19, '21
INFO B530	Foundations of Health Informatics	Lecture	Instructor	FA '17, '19
INFO B551	Independent Study in Health Informatics	Project	Supervisor	SP '16, FA '17, SP '18, SU '18
INFO B691	Thesis/Project in Health Informatics	Project	Supervisor	FA '16, '17, '18, '19, '20; SP '17, '18, '19, '20; SU '18
INFO I699	Independent Study in Informatics	Project	Supervisor	FA '16, '18

MENTORING

Dissertation Committee Advising

<i>Student</i>	<i>Program</i>	<i>Role</i>	<i>Date</i>
John Burns	PhD in HI	Committee Chair	08/2020 - present
Robert Quick	PhD in Data Science	Committee Chair	08/2020 - present
Atika Paddo	PhD in ECE	Research Advisor	08/2021 - present
Jahnvi Pinnamraju	MS in HI	Committee Chair	08/2021 - present
Nailah Khatri	MS in HI	Committee Chair	08/2021 - present
Kristin Zieles	MS in HI	Committee Chair	01/2020 - 12/2020
Sukhjit Rsaouda	MS in HI	Committee Chair	01/2020 - 08/2020
Bolu Abraham Oluwalade	MS in HI	Committee Chair	08/2019 - 05/2020
John Burns	MS in HI	Committee Chair	08/2019 - 05/2020
Kanitha Phalakornkule	PhD in HI	Committee member	06/2018 - 08/2020
Matthew Grieser	MS in HI	Committee Chair	08/2018 - 12/2019
Mounika Guntu	MS in HI	Committee Chair	08/2019 - 12/2019
Kelsey Rayburn	MS in HI	Committee Chair	01/2019 - 08/2019

Tejaswini Pisati	MS in HI	Committee Chair	01/2019 - 08/2019
Bhavani Singh Agnikula Kshatriya	MS in HI	Committee Chair	01/2019 - 05/2019
Amit Parulekar	PhD in HI	Committee member	08/2018 - 12/2018
Sahithi Kalari	MS in HI	Committee Chair	05/2018 - 12/2018
Sriharsha Tummala	MS in HI	Committee Chair	05/2018 - 12/2018
Bhanuteja Yandrapalli	MS in HI	Committee Chair	08/2018 - 12/2018
Siddhartha Nuthakki	MS in HI	Committee Chair	08/2017 - 12/2018
Asha Kiranmayee Surapaneni	MS in HI	Committee member	01/2017 - 12/2018
Prathima Lakmala	MS in HI	Committee Chair	07/2018 - 09/2018
Ashwini Kowkutla	MS in HI	Committee Chair	01/2018 - 08/2018
Surendra Babu Buddi	MS in HI	Committee Chair	01/2018 - 08/2018
Parvati Naliyatthaliyazchayil	MS in HI	Committee member	05/2018 - 08/2018
Pallavi Maity	MS in HI	Committee member	01/2018 - 05/2018
Suranga Kasthurirathne	PhD in HI	Committee member	08/2016 - 05/2018
Elizabeth Meyers	BS in Informatics	Committee chair	05/2017 - 05/2018
Siva Abhishek Addepally	MS in HI	Committee Chair	01/2016 - 12/2017
Roshini Allam	MS in HI	Committee Chair	01/2016 - 12/2017
Olakunle Oladiran	MS in HI	Committee Chair	01/2016 - 12/2017
Bhavana Srinivas	MS in HI	Committee Chair	01/2017 - 05/2017
Ria Bansidhar Bhaduri	MS in HI	Committee Chair	01/2016 - 05/2017

TEACHING ADMINISTRATION AND CURRICULUM DEVELOPMENT

<i>Activity</i>	<i>Description</i>	<i>Date</i>
PRAC report for the HI Program (2019-2020)	I analyzed the data for student learning, program outcomes and curricular development and changes over the years 2017-2019 to reflect the changes from the last time the PRAC report was done. Wrote and submitted the PRAC.	AY 2019-2020
Manipal University MOU BS-MS course mapping	I helped map the courses between the Manipal University HIM and MS in HI at SOIC so that a memorandum of understanding for 2+2 exchange program and transfer credits can be done between the universities.	Spring 2019
BS in BMI Health Informatics track proposal and course mapping	I helped create the proposal for the new BS in Biomedical Informatics specialization in Health Informatics and proposing new courses that would be feeder courses for competencies required for the CAHIIM accredited MS in HI program.	Spring 2019
Master's Certificate in Biomedical Data Analytics Curriculum and Degree Proposal	I created the proposal for a new graduate certificate in Biomedical Data Analytics for 15-cr that is focused on data science careers in health care.	Fall 2017

Health Informatics Program Accreditation Contributor	I contributed to the analysis of the self-assessment of the MS in HI program for the CAHIIM accreditation by comparing the program learning outcomes with the course outcomes and identifying gaps to develop curricular changes and reporting those to the accreditors for their site visit.	AY 2017-2018
PRAC report for the HI Program (2017-2018)	I analyzed the data for student learning, program outcomes and curricular development and changes over the years 2015-2017 to reflect the changes from the last time the PRAC report was done. Wrote and submitted the PRAC.	AY 2017-2018
Health Informatics PhD Qualifying exam redesign	I participated along with Dr. Holden (faculty in HI) to create the new qualifying exam for the Health Informatics PhD degree.	Fall 2017
Developed the INFO B585 - Biomedical Analytics course	I developed a new course in Biomedical Analytics by including assignments and projects on the DHIS2 data analytics platform and performing stats and data analytics in R.	Spring 2017
HIM Curriculum Development	I participated in the curriculum changes committee for the BS in Health Information Management Program.	AY 2016-2017
Developed the INFO B581 - Health Information Standards and Terminology course	I developed the Health Information Standards and Terminology course with hands-on use of EHR, LIS, RIS and Pharmacy system to perform integration of these systems through XML, SNOMED and REST standards in assignments and course project.	Spring 2017
MS in HI Curriculum Review and Assessment	I conducted an analysis along with Dr. Jones (Program Director) for the course learning outcomes and program learning outcomes, which was published by the Euro HIMSS TIGER project.	Fall 2016
Developed the INFO B513 - EHR systems course	I developed the Electronic Health Records course by implementing hands-on use of LibreHealth EHR and OpenMRS throughout the course modules and providing access to real-world EHR workflows, apps and data for assignments and course project.	Fall 2016

GRANTS – TEACHING

ACTIVE/FUNDED

<u>Title</u>	<u>Granting Agency</u>	<u>Role</u>	<u>%Effort</u>	<u>Amount</u>	<u>Dates</u>
NSF CUE.NEXT conference travel grant	NSF/DUE	PI		\$1200	11/16/2019
Improving Engagement in Online Education Using Guided Inquiry Learning in the Health Information Management Course	SEIRI IUPUI	PI	2%	\$30,000	08/2017-07/2019

INVITED PRESENTATIONS – TEACHING**LOCAL**

<i>Title</i>	<i>Organization</i>	<i>Date</i>
Spotlight Talks - SEIRI Virtual Symposium 2020	SEIRI IUPUI	12/04/2020
The past, present and future of EHRs, CPOE/e-prescribing and PHRs	Purdue University College of Pharmacy	10/16/2017
Health Informatics Innovation at the Purkayastha Lab for Health Innovation	Indianapolis Public Schools, Indiana State Museum	11/08/2017

NATIONAL

<i>Title</i>	<i>Organization</i>	<i>Date</i>
Making of the BS degree in Biomedical Informatics at IUPUI	AMIA Academic Forum	03/30/2021
CUE.NEXT – Panel on Institutional efforts in Computing in Undergraduate Education	NSF DUE	11/18/2019

INTERNATIONAL

<i>Title</i>	<i>Organization</i>	<i>Date</i>
Academic and Training programs for EHR systems	OpenMRS Camp, Indiana	11/30/2015
OpenMRS Introductory Academy	OpenMRS Annual Conference, Singapore	08/01/2016

GRANTS – RESEARCH**ACTIVE/FUNDED**

<i>Title</i>	<i>Granting Agency</i>	<i>Role</i>	<i>%Effort</i>	<i>Amount</i>	<i>Dates</i>
Center for Biologics Evaluation Research: BEST Task Order 2	US FDA	Co-I	20%	\$162,420	10/2019-09/2020
FW-HTF-RM: Measuring learning gains in man-machine assemblage when augmenting radiology work with artificial intelligence	NSF ENG/EFMA	PI	20%	\$826,795	09/2019 - 08/2022
Center for Biologics Evaluation Research: Biologics Effectiveness and Safety (BEST)	US FDA	Co-I	20%	\$139,510	01/2019-10/2019
CICI: SSC: Development of a Secure and Privacy-Preserving Workflow Architecture for Dynamic Data Sharing in Scientific Infrastructures	NSF/OAC	Co-PI	10%	\$599,998	07/2018-08/2021
eHBB: Virtual Reality Technology to Improve Newborn Healthcare Delivery in Low- and Middle-Income Countries	Bill & Melinda Gates Foundation	Co-I	20%	\$1,192,608	10/2017-09/2019
Nvidia GPU Grant Program (Quadro P6000 in-kind)	Nvidia Inc.	PI	0%	\$5,998	11/2018

Global health eInfrastructures (GHeI), Research Fellowship	Norwegian Research Council	Student	100%	1.2 MNOK (~\$150,000)	02/2010-02/2014
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INVITED PRESENTATIONS – RESEARCH

LOCAL

<i>Title</i>	<i>Organization</i>	<i>Date</i>
Novel deep learning approaches for Human-AI collaboration in Radiology	Indiana AI Week	09/03/2021
Radiologist-AI Assemblage - beyond augmentation in clinical decision-making	Institute of Artificial Intelligence, IUPUI	10/23/2020
Implementation of Machine Learning Tools in Hospital Workflow	Data Science Summit, IUPUI	03/22/2019
Dean's Advisory Council Roundtable Discussion on Artificial Intelligence in Healthcare	SICE, IU Bloomington	10/26/2018
Neonatal Device Prototyping and Educational App Development to Support Targeted Neonatal Training Initiatives	IU School of Medicine	12/08/2017
mHBS powered by DHIS2: Neonatal Device Prototyping and Educational App Development to Support Targeted Neonatal Training Initiatives among Healthcare Workers in Low and Middle-Income Countries	Purdue University	03/09/2018
The Developmental Impact of Infrastructures: A Case of OpenMRS Interoperability	Regenstrief Institute	02/03/2016

INTERNATIONAL

<i>Title</i>	<i>Organization</i>	<i>Date</i>
mHBS powered by DHIS2: ready for national scale	Network for Improving Quality of Care for Maternal, Newborn and Child Health, Ethiopia	12-14 Mar, 2019
Mobile Helping Babies Survive: A training app for neonatal health workers	Pediatric Academic Societies	05/10/2018
Using OpenMRS for NCD Tracking	University of Medellin	06/14/2016

GRANTS – SERVICE

ACTIVE/FUNDED

<i>Title</i>	<i>Granting Agency</i>	<i>Role</i>	<i>%Effort</i>	<i>Amount</i>	<i>Dates</i>
WISE Indiana – Monon Collaborative (Indiana CTSS)	Indiana FSSA - Division of Mental Health and Addiction	co-I	20%	\$9500	2/2021-8/2021
Google Summer of Code – Mentoring Organization (LibreHealth)	Google Inc.	co-PI	10%	\$20,600	2017-2020

AI-based LibreHealth Radiology Information System – GCP Research Credits	Google Inc.	PI	0%	\$20,000 (GCP credits)	12/2018
eHealth Architecture Blueprint for Ministry of Health & Sports of Myanmar	World Health Organization	PI	50%	\$48,586	06/2017- 11/2017
Implementation of the Telemedicine system in Bhutan.	World Health Organization	PI	100%	\$14,000	07/2015- 11/2015

INVITED PRESENTATIONS – SERVICE

NATIONAL

<i>Title</i>	<i>Organization</i>	<i>Date</i>
Disaster Preparedness and Response using DHIS2 and LibreHealth EHR	HHS, CDC, and DOD	10/30/2018

INTERNATIONAL

<i>Title</i>	<i>Organization</i>	<i>Date</i>
LibreHealth Summer Internships	Google Summer of Code Mentor Summit, Munich	03/22/2019
eHealth Architecture in Low- and Middle-income countries	Ministry of Health and Sports, Myanmar	07/12/2017
Development of eHealth Architectures: the Canadian and Indiana HIE Experience	World Health Organization Country Office, Myanmar	07/16/2017

SERVICE ACTIVITIES

UNIVERSITY SERVICE:

DEPARTMENT

<i>Activity</i>	<i>Role</i>	<i>Inclusive Dates</i>
BHI Colloquium committee	Member	09/2016 – present
BS in BMI Health Informatics curriculum committee	Member	03/2018 – present
HI Faculty Search committee	Member	09/2017 – 05/2019
HIM Lecturer Search committee	Member	06/2018 – 08/2018
HIM Faculty Search committee	Member	01/2016 – 06/2016

SCHOOL

<i>Activity</i>	<i>Role</i>	<i>Inclusive Dates</i>
Diversity, Equity and Inclusion Workgroup at SOIC	Member	08/2020 – present
Academic Affairs Committee	Member	09/2018 – 05/2019
Fourth floor Redesign Committee	Member	10/2018 – 01/2019
Awards and Scholarship Committee	Member	09/2017 – 05/2018
Colloquium Committee	Member	09/2016 – 05/2017
Faculty Affairs Committee	Member	09/2016 – 05/2017

CAMPUS

<u>Activity</u>	<u>Role</u>	<u>Inclusive Dates</u>
Indiana Clinical and Translational Sciences Institute	Core Pilot grant reviewer	Fall 2020
Institute of Integrative AI (iAI)	Steering Committee	03/2020 – present
Hummer R61 – Data Safety Monitoring Board	DSMB Member	05/2019 – present
University College Faculty	Member	09/2018 – present
Program Review and Assessment Committee	Member	08/2018 – present

PROFESSIONAL SERVICE:**REGIONAL**

<u>Organization</u>	<u>Activity</u>	<u>Inclusive Dates</u>
Indianapolis Public Schools Health Science Sector Committee	Advisory Council Committee Member	12/2016 – present
Crispus Attucks Medical Magnet High School	Health Informatics Advisory Board	01/2017 – 05/2018

NATIONAL

<u>Organization</u>	<u>Activity</u>	<u>Inclusive Dates</u>
National Institutes of Health	ZRG1 BST-S70 Panel Member	06/2021
LibreHealth/Software Freedom Conservancy	Steering Committee	01/2017 – present
AMIA Implementation Forum	Member	05/2015 – present

INTERNATIONAL

<u>Organization/s</u>	<u>Activity</u>	<u>Inclusive Dates</u>
Google Inc./LibreHealth	Org Admin GSoC	05/2020 – 09/2020
Google Inc./LibreHealth	Org Admin GSoC	05/2019 – 09/2020
Google Inc./LibreHealth	Org Admin GSoC	05/2018 – 09/2018
Human Factors and Ergonomics Society	Judge, Design Competition 2017	07/2017 – 08/2017
Google Inc./LibreHealth	Org Admin GSoC	05/2017 – 09/2017
Google Inc./OpenMRS	Org Admin GSoC	05/2016 – 09/2016
AMIA Annual Symposium, Applied Clinical Informatics, Journal of Medical Internet Research, Journal of Software and Computing, Electronic Journal of Information Systems in Developing Countries, Frontiers in Education, SIGCSE.	Journal and conference reviewer	2016-present

PUBLICATIONS

*=in-rank publications, †=publications as a mentor, IF = Impact factor, AR = Acceptance Rate
[C] = Conference; [J] = Journal; [R] = Report; [S] = Software.

Refereed Teaching Publications (n=6 in rank)

[J4] *† Balthazar, P., Tajmir, S. H., Ortiz, D. A., Herse, C. C., Shea, L. A., Seals, K. F., **Purkayastha, S & Gichoya, J. W.** (2019). The Artificial Intelligence Journal Club (# RADAIJC): A Multi-Institutional Resident-Driven Web-Based Educational Initiative. *Academic radiology*. [IF: 2.501].

- [J3] * **Purkayastha, S.**, Surapaneni, A. K., Maity, P., Rajapuri, A. S., & Gichoya, J. W. (2019). Critical Components of Formative Assessment in Process-Oriented Guided Inquiry Learning for Online Labs. *Electronic Journal of e-Learning*, 17(2). [IF: 1.953]
- [C4] * **Purkayastha, S.**, Guntu, M., Ravindran, R., & Surapaneni, A. K. (2019). Learning Gains of Process Oriented Guided Inquiry Learning in an Online Course Setting. *In European Conference on e-Learning* (pp. 495-XII). Academic Conferences International Limited. [AR=30%]
- [C3] * **Purkayastha, S.**, Surapaneni, A. K., & Maity, P. (2018). Implementing Guided Inquiry Learning and Measuring Engagement Using an Electronic Health Record System in an Online Setting. *In European Conference on e-Learning* (pp. 481-488). Academic Conferences International Limited. [AR=31%]
- [C2] * **Purkayastha, S.**, Naliyatthalizachayil, P. R. M., Surapaneni, A. K., Kowkutla, A., & Maity, P. (2018). Improving “Desktop medicine” efficiency using Guided Inquiry Learning in an Electronic Health Records System. *17th Human Computer Interaction International*, July 15 – July 20, 2018, Las Vegas, Nevada. [AR=61%]
- [J2] * **Purkayastha, S.**, Gichoya, J., Addepally, S. (2017). Implementation of a single sign-on system between practice, research and learning systems. *Applied Clinical Informatics*, 8(1), 306-312. [IF: 1.430]
- [C1] Purkayastha, S., Nehete, N., & Purkayastha, J. (2012). Dyscover: An Orton-Gillingham approach inspired multi-sensory learning application for dyslexic children. *In 2012 World Congress on Information and Communication Technologies (WICT)* (pp. 685–690). doi:10.1109/WICT.2012.6409163.
- [J1] Purkayastha, S., Price, A., Biswas, R., Ganesh, A. J., & Otero, P. (2015). From Dyadic Ties to Information Infrastructures: Care-Coordination between Patients, Providers, Students and Researchers: Contribution of the Health Informatics Education WG. *Yearbook of Medical Informatics*, 10(1), 68.

Refereed Research Publications (n=23 in rank)

- [J19] † Mahajan, Y., Bhimireddy, A., Abid, A., Gichoya, J. W., & **Purkayastha, S.** (2021). PLHI-MC10: A dataset of exercise activities captured through a triple synchronous medically-approved sensor. *Data in Brief*, 38, 107287. [IF=1.133]
- [J18] Kathiravelu, P., Sharma, P., Sharma, A., Banerjee, I., Trivedi, H., **Purkayastha, S.**, ... & Gichoya, J. W. (2021). A DICOM Framework for Machine Learning and Processing Pipelines Against Real-time Radiology Images. *Journal of Digital Imaging*, 1-9. [IF=4.056]
- [J17] Umoren, R., Bucher, S., Hippe, D. S., Ezenwa, B. N., Fajolu, I. B., Okwako, F. M., ... **Purkayastha, S.** & Esamai, F. (2021). eHBB: a randomised controlled trial of virtual reality or video for neonatal resuscitation refresher training in healthcare workers in resource-scarce settings. *BMJ open*, 11(8), e048506. [IF=2.496]
- [C29] † Kodela, S., Pinnamraju, J., Gichoya, J. W., & **Purkayastha, S.** (2021, June). Predicting Opioid Prescriptions based on Patient Demographics in MIMIC-IV. *In 2021 IEEE 34th International Symposium on Computer-Based Medical Systems (CBMS)* (pp. 225-230). IEEE. [AR=29%]
- [J16] Tariq, A., Celi, L. A., Newsome, J. M., **Purkayastha, S.**, Bhatia, N. K., Trivedi, H., ... & Banerjee, I. (2021). Patient-specific COVID-19 resource utilization prediction using fusion AI model. *NPJ digital medicine*, 4(1), 1-9. [IF=0.667]
- [J15] **Saptarshi Purkayastha**, Hari Trivedi, & Judy Wawira Gichoya (2021). Failures Hiding in Success for Artificial Intelligence in Radiology. *Journal of the American College of Radiology*, 18(3, Part B), 517-519. [IF=4.268]
- [C28] † Oluwalade, B.; Neela, S.; Wawira, J.; Adejumo, T. and **Purkayastha, S.** (2021). Human Activity

Recognition using Deep Learning Models on Smartphones and Smartwatches Sensor Data. *In Proceedings of the 14th International Joint Conference on Biomedical Engineering Systems and Technologies - Volume 5 HEALTHINF: HEALTHINF*, ISBN 978-989-758-490-9, pages 645-650. DOI: 10.5220/0010325906450650 [AR=22%]

- [C27] **Purkayastha, S.**, Goyal, S., Oluwalade, B., Phillips, T., Wu, H., Zou, X. (2021). Usability and Security of Different Authentication Methods for an Electronic Health Records System. *In Proceedings of the 14th International Joint Conference on Biomedical Engineering Systems and Technologies - Volume 5 HEALTHINF: HEALTHINF*, ISBN 978-989-758-490-9, pages 621-628. [AR=22%]
- [C26] Phillips, T., Yu, X., Haakenson, B., Goyal, S., Zou, X., **Purkayastha, S.**, & Wu, H. (2020). AuthN-AuthZ: Integrated, User-Friendly and Privacy-Preserving Authentication and Authorization. *In 2020 Second IEEE International Conference on Trust, Privacy and Security in Intelligent Systems and Applications (TPS-ISA)* (pp. 189-198). IEEE.
- [J14] * Tariq, A., **Purkayastha, S.**, Padmanaban, G. P., Krupinski, E., Trivedi, H., Banerjee, I., & Gichoya, J. W. (2020). Current clinical applications of artificial intelligence in radiology and their best supporting evidence. *Journal of the American College of Radiology*, 17(11), 1371-1381. [IF=4.268]
- [C25] **Purkayastha, S.**, Goyal, S., Phillips, T., Wu, H., Haakenson, B., & Zou, X. (2020, October). Continuous Security through Integration Testing in an Electronic Health Records System. *In 2020 International Conference on Software Security and Assurance (ICSSA)* (pp. 26-31). IEEE. [AR=42%]
- [C24] * Goyal, S., **Purkayastha, S.**, Phillips, T., Quick, R., & Britt, A. (2020, November 27). Enabling Secure and Effective Biomedical Data Sharing through Cyberinfrastructure Gateways. *Gateways 2020*. <https://doi.org/10.17605/OSF.IO/6Y8WG> [AR=N/A]
- [J13] *† Bucher, S. L., Cardellichio, P., Muinga, N., Patterson, J. K., Thukral, A., Deorari, A. K., ... & **Purkayastha, S.** (2020). Digital health innovations, tools, and resources to support Helping Babies Survive programs. *Pediatrics*, 146 (Supplement 2), S165-S182. [IF=5.417]
- [J12] * **Purkayastha, S.**, Addepally, SA, Bucher, S. (2020). Engagement and Usability of a Cognitive Behavioral Therapy Mobile App Compared with Web-Based Cognitive Behavioral Therapy Among College Students: Randomized Heuristic Trial. *JMIR Human Factors*;7(1): e14146. DOI: 10.2196/14146. [IF: 3.401]
- [C23] *† Bhimireddy, A., Sinha, P., Oluwalade, B., Gichoya, J. W., & **Purkayastha, S.** (2020, August). Blood Glucose Level Prediction as Time-Series Modeling using Sequence-to-Sequence Neural Networks. *In CEUR workshop proceedings - Knowledge Discovery for Health (KDH 2020) in conjunction with European Conference in Artificial Intelligence 2020*. [AR=28%]
- [C22] *† Rajapuri, A. S., Ravindran, R., Horan, K., Bucher, S., & **Purkayastha, S.** (2020, July). Essential Care for Every Baby: Neonatal Clinical Decision Support Tool. *In International Conference on Applied Human Factors and Ergonomics* (pp. 189-196). Springer, Cham. [AR=54%]
- [J11] * Kasthurirathne, S. N., Biondich, P. G., Grannis, S. J., **Purkayastha, S.**, Vest, J. R., & Jones, J. F. (2019). Identification of Patients in Need of Advanced Care for Depression Using Data Extracted from a Statewide Health Information Exchange: A Machine Learning Approach. *Journal of Medical Internet Research*, 21(7), e13809. [IF: 5.048]
- [J10] * **Purkayastha, S.**, Allam, R., Maity, P., & Gichoya, J. W. (2019). Comparison of Open-Source Electronic Health Record Systems Based on Functional and User Performance Criteria. *Healthcare informatics research*, 25(2), 89-98. [IF: 2.866]
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Non-refereed Research

- * Banerjee, I., Sinha, P., **Purkayastha, S.**, Mashhaditafreshi, N., Tariq, A., Jeong, J., ... & Gichoya, J. W. (2020). Was there COVID-19 back in 2012? Challenge for AI in Diagnosis with Similar Indications. arXiv preprint arXiv:2006.13262.
- *† Singh, A. K., Guntu, M., Bhimireddy, A. R., Gichoya, J. W., & **Purkayastha, S.** (2020). Multi-label natural language processing to identify diagnosis and procedure codes from MIMIC-III inpatient notes. arXiv preprint arXiv:2003.07507.
- *† Nuthakki, S., Neela, S., Gichoya, J. W., & **Purkayastha, S.** (2019). Natural language processing of MIMIC-III clinical notes for identifying diagnosis and procedures with neural networks. arXiv preprint arXiv:1912.12397.
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Refereed Service Publications/Products (n=4 in rank)

- [R1] * **Purkayastha, S.**, Singh, A. (2018). Myanmar eHealth Architecture Blueprint. *World Health Organization Country Office, Myanmar*.
- [S3] * **Purkayastha, Saptarshi**, Oluwalade, Bolu, O'Connor, Robert, Naliyatthaliyazchayil, Parvati, & Koshalya, Subhashinie. (2020, August 3). lh-toolkit-webcomponents – FHIR Web Components to develop EHR systems (Version 0.8.0). <https://gitlab.com/librehealth/toolkit/lh-toolkit-webcomponents>.
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- [S1] * **Purkayastha, S...** (2018). LibreHealth Toolkit - LibreHealth Toolkit is a software API and user interface that can be used to create electronic health record systems. GitLab repository: <https://gitlab.com/librehealth/toolkit/lh-toolkit>.

Referred Conference Posters/Presentations

1. Bucher, S. L., Rajapuri, A., Ravindran, R., Rukunga, J., Horan, K., Esamai, F., & **Purkayastha, S** *†. (2021). The Essential Care For Every Baby Digital Action Plan: Design And Usability Testing Of A Mobile Phone-Based Newborn Care Decision Support Tool In Kenya. In the American Academy of Pediatrics National Conference 2021. https://doi.org/10.1542/peds.147.3_MeetingAbstract.263.
2. Umoren, R. A., Esamai, F., Ezeaka, C., Ezenwa, B., Fajolu, I., Nafula, M.,... **Purkayastha, S.**, Bucher, S. (March 2021). eHBB: A Randomized Controlled Trial Of Virtual Reality For Newborn Resuscitation Refresher Training Of Healthcare Workers In Nigeria And Kenya. *In the American Academy of Pediatrics National Conference 2021*. https://doi.org/10.1542/peds.147.3_MeetingAbstract.237.
3. Umoren, R. A., Patel, S., Bucher, S. L., Esamai, F., Ezeaka, C., Muinga, N., ... **Purkayastha, S.**, Rossner, J., Winters, N. (March 2021). Attitudes Of Healthcare Workers In Low-Resource Settings To Mobile Virtual Reality Simulations For Newborn Resuscitation Training—A Report From The eHBB/mHBS Study. *In the American Academy of Pediatrics National Conference 2021*. https://doi.org/10.1542/peds.147.3_MeetingAbstract.229
4. Bucher, S., Hoilett, O., Bluhm, N., Walters, B., Pickering, A., **Purkayastha, S.**, ... & Ekhaguere, O. (2020, October). Wireless vital signs monitoring of opioid-exposed newborns during skin-to-skin care: Biomedical device innovation. *In APHA's 2020 VIRTUAL Annual Meeting and Expo (Oct. 24-28)*. American Public Health Association.
5. Obidi, J., Villa, C. H., Storch, E., Whitaker, B. I., Chada, K., Williams, A., ..., **Purkayastha, S.**,... & Draper, N. (2019, October). Trends in RED Blood CELL Transfusions within the Biologics Effectiveness and Safety (BEST) Initiative Network, 2012-2018. *In 2019 Annual Meeting. AABB*.
6. Sherri Bucher, Elizabeth Meyers. Bhavani Agnikula, Prem Chand AvaniGadda, Fabian Esamai, **Saptarshi Purkayastha** *†. A Mobile Phone-based Training and Data Collection app to Support Implementation of Newborn Care Programs in Low/Middle-income Countries. *29th International Pediatric Association Congress*. Panama City, Panama. March 17-21, 2019.
7. Sherri Bucher†, **Saptarshi Purkayastha***, William Combs, Jackie Linnes, Fabian Esamai. NeoInnovate: Integration of mHealth and Wearable Biomedical Device Technologies to Reduce Neonatal Morbidity and Mortality. *29th International Pediatric Association Congress*. Panama City, Panama. March 17-21, 2019.
8. Judy Gichoya, Esube Bekele, Siddhartha Nuthakki, Pallavi Maity, **Saptarshi Purkayastha***† (2018). On Clinical Relevance of Performance of Deep Networks on Chest X-Ray Images. *2018 Conference on Machine Intelligence in Medical Imaging*, Sept 9-10, 2018, San Francisco, CA.
9. Rukhaiya Fatima, **Saptarshi Purkayastha***, Josette Jones† (2018). Finding the Best EHR Training Dataset: A Cross-over Trial. *AMIA Symposium 2018*.
10. Sherri Bucher†, **Saptarshi Purkayastha***, William Combs, Fabian Esamai (2018). NeoInnovate: Integration of mHealth and wearable biomedical device technologies to reduce neonatal morbidity and mortality. *National Institutes of Child Health and Development*, June 4 – June 5, 2018, Bethesda, MD.