

Pavankumar Mulgund
Management Information Systems
FCBE - University at Memphis
301 FCBE
Memphis, TN - 38152

pmulgund@memphis.edu

ACADEMIC EXPERIENCE

Assistant Professor	University of Memphis FCBE, BIT Department	Aug 2022 - Present
Clinical Assistant Professor	University at Buffalo School of Management	Aug 2015- Till Date

EDUCATION

Ph.D.	University at Buffalo Management Science and Systems	Feb 2020
M.S.	University at Buffalo Management Information Systems	June 2014
B.E.	Visveswaraya Technological University Information systems	June 2006

PUBLICATIONS

Peer reviewed scholarly Articles

1. **Mulgund P**, Sharman R, Purao S, Suresh S, Winklestein P. Mapping online information needs of Sexually Transmitted Diseases'(STD) patients: A grounded theory investigation. Forthcoming in the *Journal of Medical Internet Research (JMIR)*, since Oct 2021. Impact factor: 5.43
2. Agarwal, L., Ndabu, T., **Mulgund, P.**, Sharman, R., "Factors Impacting the Extent of EMR Use by Patients: An Empirical Study Focusing on System and Patient Characteristics", Forthcoming in the *Journal of Medical Internet Research (JMIR)*, since Aug 2021. Impact factor: 5.43

3. **Mulgund P**, Sharman R, Rifkin D, Marrazzo S Design, Development, and Evaluation of a Telemedicine Platform for Patients with Sleep Apnea (Ognomy): Design Science Research Approach *JMIR Form Res* 2021;0(0):e0
URL:<https://formative.jmir.org/2021/0/e0/> doi: 10.2196/26059
4. **Mulgund, P.**, Mulgund, B. P., Sharman, R., & Singh, R. (2021). The Implications of the California Consumer Privacy Act (CCPA) on Healthcare Organizations: Lessons Learned From Early Compliance Experiences. *Health Policy and Technology*, 100543. Impact factor: 1.931. ABDC – B.
5. Ndabu T, **Mulgund P**, Sharman R, Singh R. Perceptual Gaps Between Clinicians and Technologists on Health Information Technology-Related Errors in Hospitals: Observational Study. *JMIR Hum Factors* 2021;8(1): e21884. URL: <https://humanfactors.jmir.org/2021/1/e21884> . DOI: 10.2196/21884
6. **Mulgund P**, Sharman R, Anand P, Shekhar S, Karadi P. Data Quality Issues With Physician-Rating Websites: Systematic Review. *J Med Internet Res* 2020;22(9):e15916. URL: <https://www.jmir.org/2020/9/e15916>. DOI: 10.2196/15916 PMID: 32986000. Impact factor: 5.43
7. **Mulgund, P.**, Pahwa, P., & Chaudhari, G. (2019). Strengthening IT Governance and Controls Using COBIT: A Systematic Literature Review. *International Journal of Risk and Contingency Management (IJRCM)*, 8(4), 66-90. doi:10.4018/IJRCM.2019100104

Under Review

1. Thimmanayakanapalya, S., **Mulgund, P.**, & Sharman, R. (2023) A Survey and Taxonomy for the Discourse Structural Analysis of Chatbots. *AIS Transactions of Human Computer Interaction (AIS-THCI)*, Vol 0, 0-0. **IF – 3.92**. Under second round review since December, 2022.
2. **Mulgund, P.**, Li, Y., & Thimmanayakanapalya, S. (2023) What Lessons Do Roblox Reviews Offer for Metaverse Applications? A Computational Grounded Theory Approach. *AIS Transactions of Human Computer Interaction (AIS-THCI)*, Vol 0, 0-0. **IF – 3.92**. Under first round review since January, 2023.
3. Sun, YC., **Mulgund, P.**, & Sharman, R. (2023). The performance efficiency of AI investment across countries: An application of stochastic production frontier model. *Journal of Global Information Management (JGIM)*, 31(2), 0-0. DOI: 151122-075402. Under first round review since November, 2022.
4. **Mulgund, P.**, Gupta, M., & Sharman, R. (2023) A defense in depth model of countermeasures against adversarial artificial intelligence attacks: A literature review and classification. *Journal of Database Management (JDM)*, Vol 0, 0-0. **IF - 2.656**. Under first round review since October, 2022.

5. Agarwal, L., **Mulgund, P.**, & Sharman, R. (2023). Handling imbalanced data with Weighted Logistic Regression and Propensity Score Matching methods: The case of P2P money Transfers. *Journal of Database Management (JDM)*, Vol 0, 0-0. **IF - 2.656**. Under first round review since October 2022.
6. Coauthored an extended abstract titled 'A Lean Value Creation Framework for Designing, Developing, and Scaling Metaverse Platforms' for the *Journal of Management Information Systems* on special issue on 'Fostering the Design and Governance of the Metaverse'. Coauthors include: Yafang Li, Yujhe Gheng, and Sagarika Suresh Thimmanayakanapalya. IF – 7.838. (Submitted Jan 30th, 2023)

Under Preparation

1. **Mulgund, P.**, Sharman, R., Sun, Y., Ivanov, A. "Do affiliation networks attenuate the effect of health IT on medical referrals? – An Empirical investigation" – Under the first-round review at the *Management Science* impact factor – 4.883 since Sep 2021.
2. **Mulgund, P.**, Agarwal, L, Blake, G, Purao, S. "Co-designing a web portal for postpartum depression in men: A participatory design study" – (Current Status: Data Collection; Targeting European Journal of Information Systems (EJIS))
3. Purao, S, **Mulgund, P.** "Information Work for Self-Management of Multiple Chronic Conditions by the Aging-at-Home: Three Challenges" – (Current Status: Manuscript preparation; Targeting Scandinavian journal of information systems)

Proceedings & Conferences

1. **Mulgund, P.**, Higgins, K., Chew, SL., Singh, R., Li, Y., Examining antecedents and causal factors of CISO burnout: An interpretivist research approach. In *Proceedings of the 2023 ACM SIGMIS Conference on Computers and People Research*. (To be submitted by mid-February 2023). Coauthored with MS IS and PHD students of UofM.
2. Purao, Sandeep and **Mulgund, Pavankumar**, "Designing for Self-Management of Multiple Chronic Conditions by the Aging-at-home" (2022). ICIS 2022 Proceedings. 18. https://aisel.aisnet.org/icis2022/is_health/is_health/18
3. Thimmanayakanapalya, Sagarika Suresh; **Mulgund, Pavankumar**; and Sharman, Raj, "Development of an Automated Physician Review Classification System: A hybrid Machine Learning Approach" (2022). *ICIS 2022 Proceedings*. 16. https://aisel.aisnet.org/icis2022/ai_business/ai_business/16
4. **Mulgund, P.**, Sagarika, S., Sharman, R. Agarwal, L. Design Science Approach to developing an empathetic chatbot application for Sexually Transmitted Diseases patients. AMCIS 2021. Montreal, Canada. (*Emergent Research Paper - Top 25%*)

5. Ndabu, T., **Mulgund, P.**, Sharman, R., and Garg, R., “Design Principles for Healthcare Applications: A patient safety focus”, Presented as a poster at the 14th International Conference on Design Science Research in Information Systems and Technology (DESRIST), Dublin, Ireland, Worcester, Massachusetts, June 4 – June 6, 2019
6. Vasishta, A. N., Gupta, M., Misra, S. K., **Mulgund, P.**, & Sharman, R. (2018, June). Optimizing Cybersecurity Program-Evidence from Data Breaches in Healthcare. In 13th Annual Symposium on Information Assurance (ASIA '18) (p. 36).
7. **P. Mulgund**, M. Gupta, S. Singh, S. Walia, R. Sharman, "Framework to analyze the vulnerabilities in IOT", 12th Annual Symposium on Information Assurance (ASIA' 17), JUNE 7-8, 2017.
8. Monteiro*, J., **Mulgund, P.**, Sharman, R. (2016). A Framework for Next Generation iCBT Applications for SAD Patients. AMCIS 2016. S. Diego, CA
9. **Mulgund, P.**, Han, W., Sharman, R., Upadhyya, A., Bandi, S. R., Miriyapalli, V., ... & Singh, G. (2014, May). Personalized medication adherence motivating and reminding system (PMAMRS). In International Conference on Design Science Research in Information Systems (pp. 448-452). Springer, Cham.
10. Han, W., **Mulgund, P.**, Sharman, R., Singh, G., & Singh, R. (2014). Self Health Management Mobile Application for Diabetic Patients and the Impact on Treatment Adherence.
11. Monteiro, J., Yuan, S., Upadhyya, A., **Mulgund, P.**, Malaviya, M., & Sharman, R. (2014, May). Mass Shooting Incident Response Optimization System: Development of Situational Aware Incident Response System. In International Conference on Design Science Research in Information Systems (pp. 428-432). Springer, Cham.

Co-Edited Book

Gupta, M., Sharman, R., Walp, J., & **Mulgund, P.** (Eds.). (2017). “Information Technology Risk Management and Compliance in Modern Organizations”. IGI Global.

RESEARCH INTERESTS

Health Information Systems, Design Science Research, Security and Privacy, Data & Information Quality, Health Informatics.

AWARDS

- PhD Student Achievement Award for scholastic excellence and outstanding extracurricular service to the school and university, 2020.
- 2020 InfoTech WNY BETA award for Educator in Tech for teaching excellence, 2020

- Health informatics Track Chair for American Conference on Information Systems (AMCIS,2020)
- Winner of the PHD showcase & poster competition at University at Buffalo, 2019
- Dean’s discretionary lump-sum award for excellence in teaching & service, 2019
- UB Excellence in Research, Scholarship and Creativity Certificate of Excellence, 2018
- Dean’s discretionary lump-sum award for excellence in teaching & service, 2018
- Runners up award for Best Prototype at Workshop for Information Systems (WITS), 2014

GRANTS RECEIVED

- Raj Sharman (PI) and Pavankumar Mulgund (Co-PI) Design and development of an AI based chatbot for sexually transmitted diseases patients: UB school of Management Faculty summer grant, June - September 2021. [\$10000].
- Yafang Li, **Pavankumar Mulgund** (Co-PI) and Sandra Richardson (Co-PI) Designing A Culturally Tailored Diet Management Application for Type 2 Diabetic Patients: Community of Research Scholars (CoRS), Dec 2022 - July 2023. [\$2500].
- **Pavankumar Mulgund** PI, Yafang Li (Co-PI), Sandra Richardson (Co-PI): Designing A Culturally Tailored Diet Management Application for Type 2 Diabetic Patients: FedEx Institute of Technology Development Grants, Jan 2023 - July 2023. [\$15000].

TEACHING EXPERIENCE

Courses Taught at University of Memphis

Instructor

MIS 7670 Information Security Management, 2023 Spring

BA 7503 Business Analytics for Managers, 2023 Spring

MIS 7670 Information Security Management, 2023 Spring Fall (4.79/5)

BA 7503 Business Analytics for Managers, 2023 Spring Fall (3.83/5)

TEACHING INTERESTS

- Information Security Management, Database Management Systems (UG/G), Data visualization (UG/G), Data Analysis with Python (UG/G), Machine learning with Python (UG/G), System Analysis and Design (UG/G), Digital Product Management (UG/G), IT Project Management (UG/G), Object-oriented programming (UG/G)

SERVICE

- Designed and developed stackable digital certificates leading into a graduate degree
- Serve as the Program Director for the MS in MIS program

- Served on the AOL (Assurance of Learning) committee for AACSB accreditation
- Manage day to day operations, student recruitment, enrollment and academic advising.
- Prepared syllabus for MGS 406 - Big Data Technologies and additional documentation for upcoming UB Bachelor of Science in IT management program
- Served on the Non-Tenure faculty search committee

EDITORIAL EXPERIENCE

- Ad-hoc reviewer for Journal of medical internet research (JMIR), Health policy and technology journal, Communications of the Association for Information Systems and several IS conferences - AMCIS, ICIS

PROFESSIONAL CERTIFICATIONS & LICENSES

- Certified Information Systems Auditor (CISA) exam pass
- Health Information Portability and Accountability Act (HIPAA) certified
- Project Management Institute – Agile certified professional (PMI-ACP)
- Certified Scaled Agile Program Consultant (SPC 5.0)
- Certified Safe 4 agilist from Scaled Agile INC
- Certified scrum master from Scrum Alliance (CSM)
- Certified Product owner from Scrum Alliance (CSPO)
- Certified large-scale scrum basics from Less works
- IBM certified Design Thinking co-creator
- IBM certified Enterprise Design Thinking practitioner
- EMC Data Science Associate v2
- Management in Health – The World Bank Group
- Pursuing AWS academy certified instructor certification (expected date – 30th Sep, 21)

PROFESSIONAL EXPERIENCE

ACTIONET

Baltimore, Maryland, USA

Senior Business Analyst- Product Owner

June 2014 – Aug 2015

- Managed overall internal and client’s operational and administrative functions including external agencies to deliver best IT products for our federal clients Center of Medicare and Medicaid Services (CMS), the largest government health insurer in the US
- Leveraged my expertise of software architectures, software lifecycle methodologies and information systems development and participate in all phases of complex functional and technical analysis to provide deliverables such as functional specification documents.
- Drove functional and technical specifications to completion, engage effectively with key stakeholders, identify and set success criteria and have a full understanding of the define/build/ship development cycle.

IBM INDIA PVT LTD
India

Bangalore,

Senior Systems Analyst
2013

August 2010-July

- Managed end to end software development for Smarter Commerce products of IBM.

OBOPAY MOBILE PVT LTD

Bangalore, India

QA Engineer

July 2006 – August 2010

- Lead automated and manual QA teams that verified mobile payment applications

MINDTREE LTD.

Bangalore, India

Senior Test Engineer

July 2006 – August 2009

- Developed automated test frameworks using cutting edge technologies like Python

TECHNICAL SKILLS

Data related – SQL, Oracle Database administration, Stata, Tableau, Python

Programming skills – Java, J2EE, HTML, Node Js, JavaScript, CSS

MEDIA MENTIONS

- The problem with doctor rating websites
<https://medicalxpress.com/news/2021-01-problem-doctor-websites.html>
- Doctors, IT Experts Differ On Why Tech-Related Errors Occur — And How To Fix Them
<https://patch.com/new-york/buffalo/university-buffalo-ub-now-doctors-it-experts-differ-why-tech-related-errors-occur>
- Healthcare Organizations Face Legal and Technological Challenges Achieving CCPA Compliance
<https://www.healthcareitnews.com/news/california-consumer-privacy-act-can-cause-headaches-healthcare-orgs>