Siddhartha Nambiar, PhD

Research Fellow · MedStar Health Research Institute

3007 Tilden St NW, Washington, DC, 20008
✉ Siddhartha.Nambiar@MedStar.Net | ⌂ www.snambiar.com | 🐦 @SiddNambiar

Education

North Carolina State University   *Raleigh, North Carolina, USA*
Ph.D. in Industrial and Systems Engineering   *August 2015 - May 2020*
- Advisor: Dr. Maria E. Mayorga
- Dissertation title: Improving Hospital Operational Efficiency when Staff Workload Affects Patient Outcomes.

State Univ. of New York at Buffalo, USA   *Buffalo, New York, USA*
M.S. in Industrial Engineering   *August 2013 - May 2015*
- Thesis Advisor: Dr. Alexander Nikolaev
- Thesis title: Sequential Stochastic Assignment with Unknown Worker Quality.

Indian Institute of Technology at Guwahati   *Guwahati, Assam, India*
B.Tech. in Mechanical Engineering   *August 2009 - June 2013*

Professional Experience

2020 - Curr	**Post-Doc Research Fellow,** National Center for Human Factors in Healthcare, MedStar Health Research Institute
2018-2020	**Graduate Research Assistant,** Dept. of Industrial and Systems Engineering, North Carolina State University
2017 - 2017	**Summer Research Intern,** Value Institute, Christiana Care Health Systems
2015-2017	**Graduate Teaching Assistant,** Dept. of Industrial and Systems Engineering, North Carolina State University

Publications

Refereed Journal Papers

Fishbein. D., **Nambiar. S**., McKenzie. K., Mayorga. M., Miller. K., Tran. K., Schubel. L., Agor. J., Kim. T., Capan. M., (2019) "Objective Measures of Workload in Healthcare: A Narrative Review." *International Journal of Health Care Quality Assurance*. Vol. 33 No. 1, pp. 1-177.

Davis. M., **Nambiar. S**., Mayorga. M., Sullivan. E., Hassmiller Lich. K., Hicklin. K., O'Leary. M., Lind. B.K., Gu. Y., Coronado. G.D., Wheeler. S., (2019) "Impact and cost of five evidence-based interventions on colorectal cancer screening in age eligible members." *Preventive medicine* (2019): 105836.

Hassmiller Lich. K., O'Leary. M., **Nambiar. S**., Townsley. R., Mayorga. M., Hicklin. K., Frerichs. L., Shafer. P., Davis. M., Wheeler. S., (2019) "Estimating the impact of insurance expansion on colorectal cancer and related costs in North Carolina: A population-level simulation analysis." *Preventive medicine* (2019): 105847.

Chalil Madathil.S., **Nambiar. S**., Mason. S.J., Kurz. M.E., (2018) "On Scheduling a Photolithography Area Containing Cluster Tools." *Computers Industrial Engineering* 121 (2018): 177-188.

Nambiar. S., Nikolaev. A., Greene. M., Cavuoto. L., Bisantz. A., (2016) "Low Cost Sensor System Design for In-home Physical Activity Tracking." *IEEE Journal of Translational Engineering in Health and Medicine* 4 (2016): 1-6.

Stearns. M., **Nambiar. S**., Nikolaev. A., McIntosh. S., Semenov. A., (2015) "Towards Evaluating and Enhancing the reach of Online Health Forums as a Treatment of Smoking." *Network Modelling and Analysis in Health Informatics and Bioinformatics* 3, no. 1 (2014): 69.

Refereed Proceeding Papers

Swan. B., **Nambiar. S**., Koutouan. P., Mayorga. M., Ivy. J., Fransen. S., (2020) "Evaluating Diabetic Retinopathy Screening Interventions in a Microsimulation Model". Accepted for publication in the *Proceedings of the 2020 Winter Simulation Conference*.

Jazayeri, A., Capan, M., Yang, C., **Nambiar, S**., Mayorga, M., Ivy, J. and Arnold, R., (2019) "Simulating Uncertainty of Early Warning Scores in Sepsis Detection." In Proceedings of the *10th ACM International Conference on Bioinformatics, Computational Biology and Health Informatics* pp. 543-543.

Nambiar. S., Mayorga. M., O'Leary. M., Hassmiller Lich, K., Wheeler. S., (2018) "A Simulation model to assess the impact of insurance expansion on colorectal cancer screening at the population level." *Proceedings of the 2018 Winter Simulation Conference*

Subash. N. S., **Nambiar. S**., Kumar. V., (2012) "Braillekey: An alternative braille text input system: Comparative study of an innovative simplified text input system for the visually impaired". Proceedings of the *2012 4th International Conference on Intelligent Human Computer Interaction* (IHCI), pp. 1-4. IEEE, 2012.

Nambiar. S., Madathil. K. C., Pail. M. D. , Zelaya. M., Koikkara. R., Gramopadhye. A. K., (2013) "Understanding the visualization strategies used by experts when reading mechanical part drawings using eye tracking." Proceedings of the 2013 *IIE Annual Conference*, 503-511.

In Review

Hassmiller Lich. K., Hicklin. K., O'Leary. M., **Nambiar. S**., Mayorga. M., Frerichs. L., Shafer. P., Davis. M., Wheeler. S., (2021) "Assessing the impact of multicomponent interventions on colorectal cancer screening: What would it take to reach national screening targets?" Under review at *Medical Care*

Nambiar. S., Mayorga. M., Liu. Y., (2021) "Managing Emergency Department Patient Flow and Nurse Staffing using Fluid Approximations for Multi-Class Pooled Service Queues" Under review at *IIE Transactions on Healthcare Systems Engineering*

Nambiar. S., Nikolaev. A., Pasiliao. E., (2021) "3SSAP with the uncertainty in worker survival" Under review at *Management Science*

Nambiar. S., Mayorga. M. E., Capan. M.C., (2021) "Resource Allocation Strategies under Dynamically Changing Health Conditions." Under Review at *ACM Transactions on Computing for Healthcare*.

Invited Talks and Presentations

Nambiar. S., Mayorga. M., 2020. "Using fluid queuing models to develop patient routing and nurse staffing strategies." 2020 Annual Meeting of Operational Research Applied to Health Services, Vienna, Austria (Presented virtually).

Nambiar. S., Mayorga. M., 2018. "Patient routing with nurse workload considerations." 2018 INFORMS Annual Meeting, Phoenix, Arizona.

Nambiar. S., Mayorga. M., Capan. M., 2017. "Resource allocation strategies under dynamically changing patient health conditions." 2017 INFORMS Annual Meeting, Houston, Texas.

Nambiar. S., Townsley. R., Mayorga. M., Hassmiller Lich, K., Wheeler, S., 2017. "Technical Considerations: the past, present, and future of simulation modeling of colorectal cancer." CDC National Cancer Conference, Atlanta, Georgia.

Nambiar. S., Nikolaev. A., 2015. "Sequential Stochastic Assignment with uncertainty in worker survival." Annual Meeting of the Mathematical Modeling and Optimization Institute, REEF, University of Florida.

Teaching Experience

Fall 2019	**Deterministic Models in Industrial Engineering, NC State University,** Teaching Fellow	*Raleigh, NC*
2015 - 2017	**Databases for Industrial Engineering, NC State University,** Teaching Assistant	*Raleigh, NC*
Spring 2015	**Systems Modeling and Optimization, Univ at Buffalo,** Teaching Assistant	*Buffalo, NY*

Mentoring

2020 **Samip Sheth,** Medical Student, Georgetown Univesity of Medicine   *Washington DC*
2020 **Breanna Swan,** PhD Candidate, NC State University   *Raleigh, NC*

Outreach & Professional Development

SERVICE AND OUTREACH

2017- Curr **Advisory Board Member,** Lightning Bold Solutions, Inc
2018-2019 **INFORMS Health Applications Society,** Student Liaison
2016-2018 **Editor-In-Chief,** ORMS Tomorrow
2017-2018 **President,** NC State University INFORMS Student Chapter
2013-2015 **Vice-President,** Univ at Buffalo (SUNY) INFORMS Student Chapter

PROFESSIONAL MEMBERSHIPS

Institute for Operations Research and the Management Sciences
Alpha Pi Mu Honors Society
Omega Rho Honors Society