

SANDEEP RATH

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EDUCATION

UCLA Anderson School of Management, Los Angeles

June, 2016

Ph.D. Management (Operations Management)

Dissertation Title: Resource Planning Models for Healthcare Organizations

Indian Institute of Technology, Kharagpur

May, 2006

M.Tech. Instrumentation Engineering, 2006

– *Thesis Title:* Classification and Regression Trees for Natural Text to Speech Synthesis

B.Tech. Electrical Engineering

Minor, Electronics and Telecommunication Engineering.

EXPERIENCE

Kenan-Flagler Business School, University of North Carolina

May 2016–present

Assistant Professor

Chapel Hill, NC, USA

- **Research:** Collaborated with healthcare technology firms and 4 major healthcare systems in U.S. to develop data-driven models for resource planning. Models were implemented at hospitals and have led to several million dollars in cost savings annually and publication in top tier operations management journals. Invited to present research at 30+ national and international conferences and seminars.
- **Teaching:** Taught 100+ students each year across undergraduate program on courses in Operations Management, and Healthcare and Service Operations (Average Instructor Rating: 4.69/5).
- **Service:** Organized and chaired 10+ sessions at national and international conferences. Served as a reviewer for 7+ top tier journals in operations research and operations management, reviewing 50+ manuscripts. Judged over 10 research paper competitions. Served in Organizing Committee for several conference and seminars at UNC, Chapel Hill.

UCLA Anderson School of Management, Los Angeles

2011-2016

Teaching Assistant

Los Angeles, CA, USA

- Teaching Assistant for Executive MBA and Fully Employed MBA courses for over 150 students each year.

Indian School of Business, Hyderabad

2010-2011

Research Associate

Hyderabad, TG, India

- Assisted faculty in research and analysis.

Schlumberger Ltd.

2007-2010

Business Analyst & Manufacturing Engineer

Pune, India; Houston, USA; Paris, France, Stonehouse, UK

- Managed process improvement projects in manufacturing and supply chain operations
- Managed and supported supply chain IT systems for global manufacturing and supply chain operations
- Trainings and certifications in Lean Six Sigma, Supply Chain Management, and Manufacturing Systems.

ITC Ltd.

2006-2007

Assistant Manager (Operations)

Chennai, TN, India

- Stabilized a new manufacturing process for a new product worth \$5 million in annual sales. Managed supplier development, quality control, and production planning.

PUBLICATIONS

Deshpande V., Mundru N., **Rath, S.**, Knowles M., Rowe D., Wood B.C., Data-Driven Surgical Tray Optimization to Improve Operating Room Efficiency *Operations Research*, 2023

Rath, S., & Rajaram, K. Staff Planning for Hospitals with Implicit Cost Estimation and Stochastic Optimization. *Production and Operations Management*, 2022

Rath, S., Rajaram, K., & Mahajan, A. Integrated Anesthesiologist and Room Scheduling for Surgeries: Methodology and Application. *Operations Research*, 2017

Wood, B.C., Konchan, S., Gay, S., **Rath, S.**, Deshpande, V. and Knowles, M. Data analysis of plastic surgery instrument trays yields significant cost savings and efficiency gains. *Annals of Plastic Surgery*, 2021

Knowles, M., Gay, S.S., Konchan, S.K., Mendes, R., **Rath, S.**, Deshpande, V., Farber, M.A. and Wood, B.C. Data analysis of vascular surgery instrument trays yielded large cost and efficiency savings. *Journal of Vascular Surgery*, 2021

Deo, S., Rajaram, K., **Rath, S.**, Karmarkar, U. S., & Goetz, M. B. Planning for HIV Screening, Testing, and Care at the Veterans Health Administration. *Operations Research*, 2015

Rajaram, K., & **Rath, S.** Managing the Operating Room Suite at UCLA Ronald Reagan Medical Center. *Impact*, 2017

Celik U., **Rath, S.**, Kesavan S., Staats B., Does Physician Choice of When to Perform EHR Tasks Influence Total EHR Workload? *Under 2nd round review at M&SOM*

Rath, S. Rajaram K., Hudson, M.E., Mahajan A., Multi-location, Dynamic Staff Planning for a Healthcare System: Methodology and Application *Under Review at Operations Research*

HONORS

Nominated for Weatherspoon Undergraduate Teaching Award(2023), POMS Research-in-Practice Showcase Presentation(2022), Finalist, INFORMS Innovative Application in Analytics Award (2022), UCLA Dissertation Year Fellowship, UCLA Anderson Doctoral Fellowship, Fellowship for Post Graduate Studies, Government of India, National Talent Search Examination Scholarship, Government of India

TECHNICAL SKILLS

Computer Languages: Python, R, C++, Julia, shell scripting.

Computing Tools and Libraries: Stata, SQL, Gurobi Optimization Library, GAMS, AMPL, BARON, Tableau, Jupyter Notebooks, git, pandas, scikit-learn, scipy, statsmodels, slurm.

Mathematical Skills: Large Scale Linear and Integer Programming, Convex Optimization, Stochastic Programming, Robust Optimization, Simulation, Machine Learning, Regression Analysis, Time Series Analysis, Queuing Theory, Markov Decision Processes, Dynamic Programming, Game Theory, Causal Inference