

Karan S. Shah, MD, MMHC

karansamirshah@gmail.com

Preferred Address:



Permanent Address:



EDUCATION

University of South Florida (Morsani College of Medicine) , Tampa, Florida Candidate for Master of Science in Healthcare Informatics	December 2021
Vanderbilt Medical Center , Nashville, Tennessee Hospital & Clinic Administrative Fellowship	July 2019
Vanderbilt University (Owen School of Management) , Nashville, Tennessee Master of Management in Health Care (MMHC)	September 2018
Vanderbilt Medical Center , Nashville, Tennessee Emergency Medicine Residency	July 2017
Wake Forest University School of Medicine , Winston-Salem, North Carolina Doctor of Medicine	May 2014
Bucknell University , Lewisburg, Pennsylvania Bachelor of Science and Arts Major: Biology with Honors and Religion	January 2010
Pine Grove Area High School , Pine Grove, Pennsylvania	June 2006

EMERGENCY MEDICINE EXPERIENCE

Assistant Professor (Gratis), University of Louisville <ul style="list-style-type: none">Giving lectures on various emergency medicine topics to emergency residentsHelping teach the administrative elective to residents and medical students	2021-Current
Staff Physician, Baptist Hospital – Louisville <ul style="list-style-type: none">Working on creating a brand new observation unit for the hospitalWill work on reducing hospital mortality and improve quality metrics when it comes to patient careWork in the emergency department as a staff physician	2020-Current
Assistant Professor, Indiana University School of Medicine <ul style="list-style-type: none">Worked clinically as a faculty member at Methodist Hospital overseeing the residentsWorked as the Director of Business Operations and Strategy for the department	2019-August 2020
Assistant Professor, Vanderbilt Medical Center <ul style="list-style-type: none">Worked clinically as a faculty member at Vanderbilt Emergency room overseeing the residentsWorked with Hospital CEO, Hospital COO, and Chiefs of Staff to learn administration	2018-2019
Chief Resident/Clinical Instructor, Vanderbilt Medical Center <ul style="list-style-type: none">Worked clinically as faculty member at Vanderbilt Emergency Room overseeing the residentsHelped with resident education and career developmentHelped create a work schedule for 39 residentsInterviewed new residency candidatesCreated a resident scholarship to help provide funding for travel for residents	2017-2018
Moonlighting Emergency Medicine Physician, Cookeville Regional Medical Center <ul style="list-style-type: none">Worked 2 shifts a month at Cookeville Regional Medical Center as a staff physician during residency	2016-2017
Moonlighting Emergency Medicine Physician, Vanderbilt Medical Center <ul style="list-style-type: none">Worked 1-2 shifts a month at Vanderbilt Medical Center during residency	2016-2017
Vanderbilt Emergency Medicine Resident Physician, Vanderbilt Medical Center <ul style="list-style-type: none">Worked clinically at Vanderbilt Medical Center as a residentGained the skills necessary to become a successful emergency medicine residentTaught residents and medical students under me about emergency medicine	2014-2017

ADMINISTRATION EXPERIENCE

Medical Director of Utilization Management (UM), Baptist Louisville <ul style="list-style-type: none">Completing daily reviews for UM staff to ensure appropriate statusCreating an EPIC documentation template for other utilization advisors in the Baptist systemCompleting all the peer-to-peer calls to overturn insurance denials for Baptist LouisvilleCompleting continued stay reviews for UM staff to ensure appropriate statusTasked with creating a team of physician UM advisors	2021-Current
Medical Director of Patient Safety and Quality, Baptist Louisville <ul style="list-style-type: none">Tasked with improving sepsis mortality, readmission, and compliance with CMS sepsis bundleDesigning a hospital wide palliative/hospice process to reduce overall hospital mortality	2020-Current

<ul style="list-style-type: none"> • Helping redesign the flow in the ED with the ED medical Director and CNO • Helping with overall length of stay for the hospital by revamping the hospital LOS committee 	2020-Current
Medical Director of Observation Unit, Baptist Louisville	
<ul style="list-style-type: none"> • Working on creating a new observation unit for Baptist Hospital in Louisville • Working with multidisciplinary team to make ensure an easier transition • Addressing the operational issues associated with starting a new observation unit • Created protocols after working with specialists that will be used by midlevel providers to take care of patients • Working with CIT and IT team to ensure IT needs of the observation unit are met 	
Director of Business Operations and Strategy, Indiana University	2019-2020
<ul style="list-style-type: none"> • Worked on creating proposals to help win department contracts • Created metrics to help track operations and revenue • Worked on creating overall strategy for the department that was in charge of 11 different departments • Helped improve patient satisfaction scores by creating a proposal and physician score cards 	
Hospital and Clinic Administration Fellow, Vanderbilt Medical Center	2018-2019
<ul style="list-style-type: none"> • Worked with senior leadership at Vanderbilt Adult Hospital to help improve operations • Assisted the hospital COO and CEO in daily activities • Achieved better understanding of hospital financials, revenue cycle, and strategy • Assisted the Chief of Staff on hospital wide projects and worked on improving efficiency • Tasked with generating revenue for the hospital • Assigned three major projects to work on: value bundles, reducing mortality rate 	
Utilization Management Physician Advisor, Vanderbilt Medical Center	2018-2019
<ul style="list-style-type: none"> • Served as a physician advisor for VUMC utilization management • Helped determine inpatient vs observation status for patients 	
Reducing Hospital Mortality, Vanderbilt Medical Center	2018-2019
<ul style="list-style-type: none"> • Worked on decreasing overall hospital mortality • Coordinated with palliative care to make sure all physicians were trained to have palliative talk 	
Value Bundles, Vanderbilt Medical Center	2018-2019
<ul style="list-style-type: none"> • Worked with different areas in the hospital to reduce cost by increasing efficiency 	
Length of Stay Reduction, Vanderbilt Medical Center	2018-2019
<ul style="list-style-type: none"> • Worked with transition management office to reduce hospital length of stay • Worked with Chief of Staff and COO on decreasing length of stay 	
Administrator Emergency Medicine, Vanderbilt Medical Center	2018-2019
<ul style="list-style-type: none"> • Attending weekly meetings with physician leadership, nursing leadership, pharmacy, and case manager • Worked on improving emergency department operations • Created projects that helped generate revenue for the department • Created creative solutions to improve overall emergency throughput 	
Emergency Observation Unit, Vanderbilt Medical Center	2018-2019
<ul style="list-style-type: none"> • Currently working on creating an emergency department observation unit • Working through financials to see the feasibility • Working with compliance to make sure the project meets all the compliance criteria • Working with EPIC build team to help develop software solutions needed for the Observation Unit 	
Pressors through Peripheral IV Protocol, Vanderbilt Medical Center Emergency Department	2018
<ul style="list-style-type: none"> • Helped create a protocol for usage of pressors through peripheral IV • Worked with pharmacists and other MDs on this project • Made sure the protocol was in compliance with MICU at Vanderbilt Medical Center 	
Severe Sepsis Bundle Protocol, Vanderbilt Medical Center Emergency Department	2018
<ul style="list-style-type: none"> • Helped create a protocol for severe sepsis to make sure it was in compliance with CMS 	
Conscious Sedation Protocol, Vanderbilt Medical Center Emergency Department	2018
<ul style="list-style-type: none"> • Helped create a departmental policy for conscious sedation • Helped implement the policy in the department • Had over 95% compliance of policy on post implementation 	
Mid-Track Clinic, Vanderbilt Medical Center Emergency Department	2017-2019
<ul style="list-style-type: none"> • Helped create a fast track clinic in the department of emergency room • Showed the financial benefits of the fast track • Helped with daily operations of the clinic 	
Ultrasound Faculty Bonus, Vanderbilt Medical Center Emergency Department	2017
<ul style="list-style-type: none"> • Helped analyze the financial benefit of ultrasound in the department • Helped create an incentive model for faculty in the department of emergency medicine 	
Hypertension Protocol for Asymptomatic Patients, Vanderbilt Medical Center Emergency Department	2016
<ul style="list-style-type: none"> • Helped create a protocol for asymptomatic hypertensive patients that were discharged from ED 	

AWARDS

Kevin D. Rogers Excellence in Clinical Teaching Award

- Presented to a faculty member that has demonstrated outstanding clinical teaching to the residents

Dean's Excellency Award

- Presented to candidate(s) that has the highest GPA in the MMHC program

Ian Jones Chief Resident Award

- Presented to a resident that has shown exceptional dedication to the emergency residency program and department

SUMS Scholarship

- Need and merit based monetary scholarship for medical school

Charles A. Strickland Scholars

- Need and merit based monetary scholarship for medical school

B. H. Hansen Memorial Scholarship

- Endowed scholarship on behalf of the former chair of the vascular surgery

Wake Forest Medical Scholarship

- Need and merit based monetary scholarship for medical school

Early Assurance Program Wake Forest School of Medicine

- Early acceptance to medical school for extremely talented undergraduate student

2010 Class Award of Excellence

- Recognized for my overall academic and extra curriculum performance

Walter M. and Florence K. Davis Prize

- The prize is awarded to outstanding senior graduating in religion

John Dunlop Commitment to Excellence

- Highest Award for a Bucknell Undergraduate Greek who through their leadership, service, scholarship, campus and community involvements have exemplified the ideals and values of fraternity and sorority life and the mission of Bucknell University

Bison Award for Excellence in Co-Curricular Activities

- Given to students that demonstrate a commitment to the university outside the class

2010 President Recognition Award

- Recognized for serving as the InterFraternity President at Bucknell University

Recipient of President's Distinguished Academic Achievement

- Recognized for academic achievements by Bucknell University's president

Recognized Gates Millennium Scholar

- Academic and Need Based Scholarship given to racially diverse, underprivileged students
- Highly competitive academic scholarship selecting 1,000 students from 50,000 applicants

Recognized Valedictorian

- Graduated at the top of my high school class in 2006

EXPERIENCE

Research, Department of Emergency Medicine, Vanderbilt Medical Center	2015
<ul style="list-style-type: none"> • Looking at impact of ACA and emergency room visits across the nation • Data collection and working on paper writing for this project 	
Research, Department of Emergency Medicine, Wake Forest School of Medicine	2012-2014
<ul style="list-style-type: none"> • PARS database reviewed to investigate reasons behind complaints against EM providers • RIVUR database was used to determine effects of TMP/SMX on kidney function of children 	
Research Internship, Kosair's Childrens Pediatric Unit, University of Louisville Medical School	Summer 2012
<ul style="list-style-type: none"> • Data collection for Type 1 Diabetic drug, immunomodulator • Worked on a paper involving using tPA for blocked IVs in neonate population • Collected and analyzed data for an enzyme that can prolong life for children with Pompe's disease 	
Research Internship, Department of Physiology, University of Louisville Medical School	Spring 2010
<ul style="list-style-type: none"> • Worked with cell tissue culture to test the effects of curcumin • Looked at effects of curcumin on mice that were had ischemic strokes • Tried to get a cochlea hearing experiment started in mice that had strokes 	
Undergraduate Research, Department of Biology, Bucknell University	2007-2010
<ul style="list-style-type: none"> • Developed a successful technique to do in-situ hybridization on bee brains • Discovered the precise location of DWV virus infection in the bees' brains 	
Summer Research Opportunities Program (SROP), Wake Forest University School of Medicine	Summer 2009
<ul style="list-style-type: none"> • Constructed a fusion protein with firefly and gaussia luciferase and Mcl-1 • Transfected cells with fusion proteins and monitored levels of Mcl-1 in LNCap and Hela cells • Developed a non-invasive way to monitor Mcl-1 levels using Bioluminescent imaging 	
Research Internship, Department of Physiology, University of Louisville Medical School	Summer 2008
<ul style="list-style-type: none"> • Cloned cystathionine gamma lyase gene and made a construct • Sectioned for other post doctorates 	

PUBLICATIONS AND PRESENTATIONS

- Lacy AJ, Freeman CL, Devin R, Bess A, **Shah KS**, Smith AT. 2020. Spontaneous Isolated Celiac Artery Dissection. Clinical Practice and Cases in Emergency Medicine. (Accepted Article)

- D'Alessandro AD, Sikon JR, Lacy AJ, **Shah KS**, Smith AT. 2020. Vitriolage by Sulfuric Acid: Unique Challenges and Considerations in Patient Resuscitation. Vol 59, Issue 4: 123-126.
- Murphy LS, Lacy AJ, Smith AT, **Shah KS**. 2020. Cryptococcal Meningitis in an Immunocompetent Patient. American Journal of Emergency Medicine. Vol 20, Issue 11:2492e1- 2492e3.
- Bermudez E, Binion T, **Shah KS**. 2020. Deep T-wave inversions on ECG associated with increased intracranial pressure. Visual Journal of Emergency Medicine. Vol 20.
- Krumsick Z, Bongartz T, Miller N, **Shah KS**. 2020. Do wireless ear phones need to be removed emergently once swallowed?. Visual Journal of Emergency Medicine. Vol 20.
- D'Alessandro AD, Smith AT, Binion TW, **Shah KS**. 2019. Runner with Abdominal Pain. Annals of Emergency Medicine. Vol 74, Issue 4: 491.
- Freeman CL, Bales BD, **Shah KS**. 2019. Painful Unilateral Vision Loss. Photo Competition at American Academy of Emergency Medicine. Las Vegas, NV.
- Lacy AJ, Halsey-Nichols RM, Freeman CL, **Shah KS**. 2019. Skin Manifestations and Lab Abnormalities of Familial Hypertriglyceridemia. Visual Journal of Emergency Medicine 15.
- **Shah KS**, Freeman CL, Norman, J, Slovis C, Russ S, Jones I, Sims M, Sims M, Wulliman K, Yiadom M, Barrett T. Vertical Transition Unit to Reduce the Number of Patients who Leave without Being Seen (LWBS). Abstract at 2018 National Conference Clinical Operations: Patient Flow to Population Health
- Melton M, **Shah KS**, Smith A, Hailey C. 2019. Obstructed Hiatal Hernia Causing Extrapericardial Tamponade. Visual Journal of Emergency Medicine. 14:28-29
- Trommter R, Freeman CL, **Shah KS**, McKinzie J, Smith A. 2019. Hypothenar Hammer Syndrome. Journal of Emergency Medicine 56: 105-106.
- Payne S, Clemens E, **Shah KS**. 2018. Optimizing the Electronic Track Board to Improve ED Room Turnover. Medical Student Quality Improvement Project Poster Symposium, Nashville, TN.
- **Shah KS**. 2018. Gastrointestinal Review. Resident Education Lecture (In-Service Review), Nashville, TN.
- **Shah KS**. 2017. Recognition and Treatment of Leukemias in the ED. Resident Education Lecture, Nashville, TN.
- Branson S, **Shah KS**, Yan Y, Kurup S. 2015. Dermatoses and Uveitis. Presentation at National Institutes of Health
- **Shah KS**. 2015. Unstable Cervical Spine Injuries Jeopardy. Resident Education Lecture, Nashville, TN.
- **Shah KS**, Evans EC, Pizzorno MC. 2009. Localization of Deformed Wing Virus (DWV) in the brains of honeybee, *Apis mellifera* L. Virology Journal 6: 182.
- Utpal S, Basu P, Abe OA, Givvimani S, Tyagi N, Metreveli N, **Shah KS**, Passmore JC, Tyagi SC. 2009. Hydrogen sulfide ameliorates hyperhomocysteinemia-associated chronic renal failure. Am J Physiol Renal Physiol 297(2):F410-F419.
- **Shah KS**, Yancey D, Hassan S, Karpova Y, Baurin V, Kulik G. 2009. Monitoring levels of Mcl-1 by Bioluminescent Imaging. Poster session presented at the Summer Poster Symposium, Winston-Salem, NC.
- **Shah KS**, Capaldi EC, Pizzorno MC. 2008. Localization of the Genome of Deformed Wing Virus (DWV) in the Brains of Honeybees. Oral presentation at the Allegheny Branch American Society for Microbiology, Lewisburg, PA.
- Pizzorno MC, **Shah KS**, Capaldi EC. 2008. Localization of the Genome of deformed wing virus (DWV) in the brains of honeybees. Oral presentation at the American Society for Virology, Ithaca, NY.
- **Shah KS**, Capaldi EC, Pizzorno MC. 2008. Relationship between Honeybees, DWV, and CCD. Oral presentation at Kalaman Symposium, Lewisburg, PA.
- Capaldi EC, Pizzorno MC, **Shah KS**, Ndukwe N. 2007. Relationship between DWV and behavior in Honeybees. Oral presentation at Penn State College of Agricultural Sciences, Unityville, PA.

LEADERSHIP POSITIONS

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| Director of Observation Unit/Director of Staff Medical Quality and Safety, Baptist Louisville | 2020 – Current |
| <ul style="list-style-type: none"> • Working on creating a new observation unit for Baptist Hospital in Louisville • Will work on improving hospital quality metrics with the team and physicians • Will also work on operation metrics for the hospital by reporting to the COO | |
| Director of Business Operations and Strategy, Indiana University | 2019-2020 |
| <ul style="list-style-type: none"> • Worked on creating overall strategy for multiple emergency departments • Created metrics that could be used to monitor overall daily and monthly operations • Helped create proposal to get emergency department contracts • Worked with revenue cycle to reduce denials and improve collections • Helped make clinical operations much more efficient | |
| Administrative Fellow, Vanderbilt Medical Center | 2018-2019 |
| <ul style="list-style-type: none"> • Helped Create this position at Vanderbilt Medical Center and secured funding from hospital • Worked daily with Chief of Staff, COO, and CEO of VUMC Adult Enterprise • Worked on three main projects: value bundles, reducing length of stay, and reducing hospital mortality • Learned the inner workings of a major academic medical center | |
| Chief Resident Emergency Medicine, Vanderbilt Medical Center | 2017-2018 |
| <ul style="list-style-type: none"> • Organized a schedule for 39 residents • Helped the residents with day to day problems/issues • Helped mentor the residents • Helped with resident education and medical school education | |

Epic Peer Trainer, Vanderbilt Medical Center	2017- 2018
<ul style="list-style-type: none"> • Helping with the Epic roll out at Vanderbilt • Helping train other faculty members and residents on Epic 	
Resident Representative, Medical Director's Meeting, Vanderbilt Medical Center	2016-2017
<ul style="list-style-type: none"> • Worked with various medical directors from different departments to help improve resident problems 	
Resident Representative, Graduate Medical Education, Vanderbilt Medical Center	2016-2017
<ul style="list-style-type: none"> • Brought forward issues facing the residents to the program directors • Worked on solutions to help the residents 	
Board Member, Medical Center Medical Board, Vanderbilt Medical Center	2016-2017
<ul style="list-style-type: none"> • Represented the resident interest on the hospital wide board • Helped create policies affecting the entire hospital 	
Board Member, Vanderbilt Medical Alumni Association	2016-2017
<ul style="list-style-type: none"> • Represented the residents on the board 	
House Staff Advisory Council Co-Chair, Vanderbilt Medical Center	2016-2017
<ul style="list-style-type: none"> • Served as the chair of the hospital wide committee to help solve resident issues • Worked on creating a free gym membership for all the residents • Helped improve financial understanding amongst residents by creating a lecture series • Worked closely with the Dean of Graduate Medical Education 	
House Staff Advisory Council Member, Vanderbilt Medical Center	2015-2016
<ul style="list-style-type: none"> • Served as the emergency medicine resident representative on the house staff committee • Helped improve issues facing the house staff 	
EMRA Health Committee	2015-2016
<ul style="list-style-type: none"> • Participated in EMRA Health Committee activities • Vanderbilt's representative at EMRA's representative council 	
Tennessee ACEP Board Member	2015-2016
<ul style="list-style-type: none"> • Participated in board meetings for the regional chapter 	
Dean's Ambassadors, Wake Forest School of Medicine	2010-2014
<ul style="list-style-type: none"> • Gave tours to and answered questions from medical student applicants • Provided feedback to admission officials on candidates 	
Treasurer, Health Fair, Wake Forest School of Medicine	2011-2012
<ul style="list-style-type: none"> • Helped manage funds for student organized health fair for the local community • Collected and balanced budgets, paid bills, helped raise funds 	
Treasurer, Internal Medicine Interest Group, Wake Forest School of Medicine	2011-2012
<ul style="list-style-type: none"> • Raised money for the interest group to support events • Organized and participated in monthly journal clubs 	
President, Interfraternity Council, Bucknell University	2009-2010
<ul style="list-style-type: none"> • Worked with 12 fraternities to ensure the university Greek System was running smoothly • Served as liaison between the fraternities and the administration • Organized events with over 1200 Greek members 	
Vice President External, Lambda Chi Alpha, Bucknell University	2009-2010
<ul style="list-style-type: none"> • Take care of fraternity's community service hours and philanthropy • In charge of public relationship for Lambda Chi Alpha 	
Community Judicial Board (CJB), Bucknell University	2009-2010
<ul style="list-style-type: none"> • Heard cases concerning academic dishonesty, aggressive behavior, and sexual assault • Worked with faculty and administrators to punish guilty students 	
Treasurer, Lambda Chi Alpha Fraternity, Bucknell University	2008-2009
<ul style="list-style-type: none"> • Created a budget and savings plan for the fraternity • Managed the daily financial issues such as writing checks, keep bank statements 	
Recruitment Chair, InterFraternity Council, Bucknell University	2008-2009
<ul style="list-style-type: none"> • Organized three recruitment events to recruit new members to the Greek System • Working with over 300 people to recruit and organize these recruitment events 	
PROFESSIONAL MEMBERSHIP	
American Academy of Emergency Medicine, AAEM	2014-2020
American College of Emergency Physicians, ACEP	2014-Current
Emergency Medicine Residents Association, EMRA	2014
Society for Academic Emergency Medicine, SAEM	2013
Wake Forest Emergency Medicine Interest Group, EMIG	2010
Phi Beta Kappa	2009
Omicron Delta Kappa	2009
Mortar Board	2009
Order of Omega	2009
Alpha Lambda Delta	2007

National Honor Society

2006

CERTIFICATION/LICENSURE

Kentucky Medical License	2020
Board Certified in Emergency Medicine (ABEM)	2019
Indiana Medical License	2019
Tennessee Medical License	2018
DEA License	2016
ACLS Certified	2018
BLS Certified	2018
PALS Certified	2018
Neonatal Resuscitation Certified	2014

LANGUAGE FLUENCY

English (Native)
Gujarati (Native)
Hindi (Native)
Spanish (Basic)