



SQL Server 2005



Curriculum Vitae

Rameshbabu Manyam

rmanyam@emory.edu

EDUCATION

- PhD in Computer Science with **Honors**, Georgia State University, Atlanta, USA 2019
- MS in Computer Science, Georgia State University (GSU), Atlanta, USA 2002
- MTech in Electronics Engg., Indian Institute of Technology, Varanasi, India 1993
- BTech in Electronics and Communication Engg., National Institute of Technology, Warangal 1991

WORK HISTORY

- Over 20 years of experience in progressively responsible positions that include: teaching, mentoring, research and service in areas such as, artificial intelligence, machine learning, data science, data analytics, large-scale database management, biostatistics and bioinformatics; and managing teams and projects to deliver IT solutions and services at higher education institutes and public enterprises in the fields of data analytics, database systems, business intelligence, software application development, IT systems admin support. Detailed experience includes:
 - Ten plus years of research, teaching, and mentoring experience: taught graduate and undergraduate-level courses, for example, database development for public health. python programming, databases, data analytics, algorithms, and machine learning; mentored undergraduate, graduate and doctoral students and Humphrey fellows at Emory, Univ. of North Georgia, Georgia State University, and University of Tennessee; and provided on-the-job training, lectures, seminars. workshops at scientific conferences in the areas of artificial intelligence, machine learning, bioinformatics, large scale databases, information technology solutions to programmers, business analysts, data analysts, peers, and students.
 - Five plus years of hands-on experience in database development and administration, business intelligence and data warehousing; data collection, cleaning, analysis, consolidation and report generation; software application development, IT infrastructure and network systems support at Georgia State Univ., Kennesaw State Univ., University Tennessee and Sun Trust bank.
 - Seven years of development of software applications such as: planning, design, development, implementation, maintenance and support; business requirements collection, analysis and project management experience at the Georgia department of transportation.
 - Seven years of qualitative research, embedded software engineering, and project management experience at the Defence Research and Development Organization (DRDO), India.

HONORS/CERTIFICATES

- Provost's Distinguished Teaching Award for Excellence in Graduate and Professional Education, Emory University 2025
- 1st place Mike Kutner Faculty Poster Award Winner and Travel Award Recipient at the Southern Regional Council on Statistics (SRCOS) Summer Research Conference 2024
- Dean's Pilot Innovation Award, Rollins School Public Health, Emory University 2023
- Biostatistics and Bioinformatics Faculty Mentor Award, Emory University 2022
- Biostatistics and Bioinformatics Distinguished Teaching Award, Emory University 2021
- Outstanding Graduate Student Award, Department of Computer Science, GSU 2020
- 2nd Prize and Travel Award winner at Three Minute Thesis (3 MT) Competition at GSU 2019
- Travel Award for the 2nd Machine Learning in Science and Engineering Symposium 2019

- Featured on GSU Computer Science department, Provost and graduate school news events online, and GSU Merit pages in appreciation of research accomplishments 2019
- Travel Grant Award at Machine Learning for Health (ML4H) Workshop at NeurIPS 2018
- Microsoft Certified Tech. Specialist, MS SQL Server DBA implementation & maintenance 2010
- Oracle Database 10g Administrator Certified Associate 2009
- Oracle Certified Database SQL Expert 2009
- State of Georgia Governor Certified 'Faithful Service Award' 2008
- Microsoft Certified Technology Specialist, .NET Framework 2.0 Web Applications 2007
- Sun Certified Programmer for the J2EE Java 2 Platform 1.4 2004
- State of Georgia Merit System Certified 'Programmer' 2003

AFFILIATIONS AND ACTIVITIES

- Member, IEEE Computer Society
- Member, East North American International Biometric Society (ENAR)
- Member, Society of Thoracic Surgeons Association (STS)
- Publicity Co-chair, IEEE International Conference on Bioinformatics and Biomedicine in 2025
- Faculty Advisor, Humphrey Fellowship Program, Rollins School of Public Health, Emory University
- Organizing Committee Member, Georgia Statistics Day in 2024
- Program Committee Member, IEEE International Conference on Bioinformatics and Biomedicine

TRAINING

- LabKey, RedCap and Open Specimen software tools: clinical research data management workflow and software solutions with interactive web portals, user-interfaces, and data management tools and techniques at Rollins School of Public Health, Emory University in 2018.
- Oracle Golden Gate 12c: Real Time access to Real-Time information at Emory in 2017.
- Health Insurance Portability and Accountability Act (HIPAA) privacy, security and research modules and CITI training at Emory in 2016.
- Microstrategy v10.3 - Enterprise Business Intelligence and Reporting S/W suite at Emory in 2016.
- Amazon Web Services Immersion Training at Emory University, Atlanta in 2016.
- SAS Business Intelligence Suite 9.2 and 9.3: SAS Management Console (SMC); Data Integration (DI) Studio, OLAP Cube Studio, Information Map Studio and SAS Enterprise Guide, Web Report Studio and Analytics tools, SAS Platform Administration in 2011- 2012.
- Project Management Institute training programs through Georgia Merit System: Time Challenges and Solutions; 7 Habits of Highly Effective People; Project Planning and Development Process; Project Management and Supervisory skills sessions (2003-2007); Project management, leadership and conflict management training at Kennesaw State Univ. in 2011.
- Database Courses: Oracle DB SQL, PL/SQL Fundamentals I & II, Oracle data modeling and relational DB design; Oracle 10g Administration I; MS SQL Server 2005 Implementation and Maintenance.
- Microsoft Certified courses: .NET 2.0 Web Applications Development; Web Application Technologies (using C# and ASP.NET) with MS Visual Studio 2005; SharePoint Server 2007.
- SUN Certified Courses: Object-Oriented Analysis and Design using UML; Java Programming Workshop; Web Component Development with Servlet & JSP; Developing Applications for J2EE Platform.

SKILL SET

Business Intelligence tools: Micro Strategy, SAS Business Intelligence Suite (DI Studio, OLAP Cube studio, Management Console, Enterprise Guide, Enterprise Miner), Tableau, Business Objects, Hyperion, Hadoop, Cognos, Crystal reports

Databases: Oracle 9i/10g/11g/12c, MySQL, MySQL, PostgreSQL, MS SQL Server 200X/201X, PeopleSoft, MS Access, OpenSpecimen, RedCap, LabKey etc.

Languages/Scripts: Python, Java, C/C#, Cold Fusion, PHP, VB Script, JavaScript, Perl, PL/SQL
 Web Development Tools: DreamWeaver MX, HTML, DHTML, XHTML, AJAX, CSS, XML, XSLT, UML, REST, Drupal, ASP.NET, Web Services, JSP, .NET and J2EE Tools.
 Operating Systems: MS Windows 9X/200X/XP/NT/Vista/10, MS DOS, HP-UX, RedHat Linux, Centos, Ubuntu, MS SharePoint 2007/2010.
 Application Servers: Cold Fusion MX, Apache, Tomcat, JRun, SharePoint, Django/Rail/Zend
 Other Tools: LDAP, Active Directory, Remedy, Crystal Reports, TCP/IP, VMware, VPN, MS Exchange, Toad, SQL developer, SQL plus, SQL Server Mgmt Studio, Visual Studio, Adobe, MS Office Products, SAS, SPSS, SOAP, Web Reports.

SYNOPSIS OF EXPERIENCE

Emory University, Rollins School of Public Health (RSPH): Assistant Professor, 2022 - current

Adjunct Asst. Professor, Nell Hodgson Woodruff School of Nursing, Emory University

[Prior roles: Adjunct Faculty, Data Scientist, Sr., Sept 2016 - April 2022]

- Teaching 2 newly developed courses: 'BIOS 585: Python Programming', and 'DATA 521: Database Development for Public Health' to graduate students in public health from Fall 2021. Developed a new directed study course, 'BIOS 797R: Risk Models using EHR Data and Advanced Machine Learning Techniques' and been guiding predoctoral students with this directed study.
- Mentoring graduate and predoctoral students and Humphrey fellows in their academic, research and career development paths. Mentored graduate students and Humphrey fellows with their capstone and thesis projects, teaching and research assignments, career development journeys, and scientific presentations in conferences and publications in journals. Mentored 38+ students till May 2025, and currently mentoring 4 masters and 3 predoctoral students and a Humphrey fellow.
- Service activities include ongoing contributions to the department and school-wide committees, national and international conferences and associations (e.g., Faculty mentor for Emory Humphrey Fellowship Program, Faculty mentor on NIH-funded T32 training grant for training predoctoral students in Advanced Data Analytics; a mentoring co-I on a doctoral student training grant TL1, funded by the Georgia Clinical and Translational Science Alliance research training program; Publicity co-chair for the 2025 IEEE International Conference on Bioinformatics and Biomedicine, Organizer for 2024 Georgia Statistics Day; Session chair at the Eastern North American Region of the International Biometric Society's 2025 Spring Meeting, and IEEE International Conference on Bioinformatics and Biomedicine, 2024, 2025).
- Current research focuses on data science, healthcare data analytics, large scale database management and development of risk models with cutting-edge machine learning (ML) and artificial intelligence (AI) algorithms and high-performance computing environments. Some of the ongoing and completed studies include, development of novel, scalable and portable AI/ML-driven risk models for: (a) maternal morbidity and mortality, (b) medication safety in fragmented care older adults with alzheimer's disease and related dementias, (c) interhospital transfer among older adults, (d) early mortality after interhospital transfer among older adults, (e) suicidal ideation and behavior, (f) mortality after surgery for femoral shaft fractures, (g) perioperative blood transfusion in femoral shaft fracture patient cohort, (h) hospital readmission after coronary artery bypass grafting (CABG), and (i) failure-to-rescue after CABG.
- Currently collaborating with Dr. Rasheeta Chandler (Associate Professor at SON) and Sheena Warner (PhD student) in a research study titled, 'The LABOR Study: Leveraging Anesthesia- Based Obstetric Risk Assessment for Maternal Safety.' This is a grant study funded by the American Association of Nurse Anesthesiology Foundation (PI: Sheena Warner). Serving as a mentoring Co-I in this research study along with Dr. Chandler (PI-Advisor). Been in collaboration with Dr. Xiao Hu at SON on RSPH Dean's Pilot Innovation grant study, 'Scalable Machine Learning-Powered Analytics Framework for Effectively Predicting Hospital Readmission After Coronary Artery Bypass Grafting.'

- Previously worked in the role of data scientist and contributed to grant-funded research studies such as: (i) Institutional biobank for CURE COVID-19 biospecimens and metadata prospective cohort; (ii) The Children’s Health Exposure Analysis Resource, CHEAR, a program funded by the National Institute of Environmental Health Sciences to advance understanding about how the environment impacts children’s health and development; (iii) The Emory Health and Exposome Research Center: Understanding Lifetime Exposures (HERCULES), an exposome project funded by the National Institute of Environmental Health Sciences. (iv) Projects at the Center for Children’s Health, the Environment, the Microbiome, and Metabolomics (C-CHEM2) that conducted research to understand the complex interactions among components of the prenatal and postnatal environment - toxicant exposures, the microbiome, and the metabolome - and their impacts on birth outcomes and infant health and neurodevelopment. and (v) Real Time Clinical Data Analytics project, that dealt with real-time replication of the CERNER’s EMR (Electronic Medical Records) Millennium DB, using Oracle Golden Gate 12c data integration and Exadata platforms.

Overall responsibilities in the research studies above included:

- Provided technical consultation and expertise on design and development of interactive web user interfaces, software apps, workflow solutions and services.
- Interacted with Emory’s School of Public Health and School of Medicine’s executive management, department chairs, faculty, researchers and provided state-of-the-art data solutions and service
- Mentored Emory and GaTech biomedical engineering students on research projects related to health Informatics and data analytics.
- Led and guided application development support team and mentored junior developers, data analysts, researchers, graduate students, and postdocs through the design processes of interactive web user interfaces, web-portals, dashboards, common data models, development of SQL scripts for loading data, collection of metadata for data dictionary, and configuration of data level security for access by authorized users.
- Managed data modeling and database design support for datasets drawn from heterogeneous data sources; guided thru design of data collection, consolidation, and customization processes into a central data warehouse repository and development of data integration jobs and data sharing methodologies using clinical data management tools such as: Lab Key, RedCap, Open Specimen and Cloud database services through Amazon Web services Relational Data Store (AWS RDS).

Georgia State University, Atlanta, GA: Graduate Research/Teaching Assistant, 2018-2019 [and in 2013-14, 2007-9, 2001-2002]

- Assisted professors with supplemental instruction in courses such as, artificial intelligence, machine learning, parallel and distributed computing, and algorithms; mentored students and evaluated their programming assignments, tests, and projects [in 2018-2019].
- Associated with teaching assignments in introductory computer science courses/sections such as, computers and applications, principles of computer science, programming languages, database systems; assisted professors in the evaluation of student assignments, exams, and projects [2013-14, 2007-9].

University of North Georgia, Mike Cottrell College of Business, Dahlonega, GA: Adjunct Faculty in Computer Science and Information Systems, August - December 2017

- Taught undergraduate courses Computer Science I, Relations Database Systems, Software Application Development courses, and mentored students in Fall semester, 2017.

University of Tennessee at Knoxville, TN: Asc. Director [Data Architect, Sr.] November 2015 - September 2016 [Contract]

- For a research grant project on ‘Tennessee’s Longitudinal Data System’ - provided consulting support for data sets drawn from multiple data sources, such as: Tennessee Higher Education Commission

(TNHEC- Students postsecondary data), TN DOE (K12 students datasets), TN DOL (Labor and Workforce development data sets); guided thru design of data collection, consolidation, and customization processes in a central data warehouse repository and development of extract, transform and load (ETL) jobs through SQL Server Integration Services (SSIS) in MS SQL Server environment.

- Interacted with state-level software developers, programmers, data analysts, researchers, and provided state-of-the-art data solutions and services.
- Led technical support team of four junior developers for the design of web-apps, data-integration models, implementation of user interfaces, transformation logic for loading data, collection of metadata for data dictionary, and configuration of data level security and access for authorized users.
- Provided technical specifications and recommendations for design, development, and security of the web portals, dashboards, data warehouse guided by established policies and protocols.

SunTrust bank, Atlanta, GA: Asst. Vice President [Data Architect] March 2014 - October 2015 [Contract]

- Technical Lead with design and development efforts for user-friendly web-portals, dashboards, data marts for **Fraud and Research Analytics** group. Responsibilities included: extracting data from multiple data sources, such as IBM DB2 BI Appliance, Oracle account management database, SQL server and SharePoint environments; collecting data needs, designing new and upgrading existing databases; integrating application user interfaces with databases.
- Managed migrations and upgrades of outdated databases (e.g., Access DB files into MS SQL Server 2012 and older version of Oracle DBs to Oracle 11gR2 and 12c); Created SQL Server Integration Services (SSIS) load jobs to extract, transform, consolidate data from various external data sources; Managed the consolidation, staging/archiving, and distribution of data to reporting portals.
- Managed implementation of latest security patch upgrades, and provided system admin support for MS SQL Server 2012 and Windows 2012 systems. Established Oracle Real Application Cluster (RAC) environment to enable application fail-overs;
- Supervised and trained a team of six members consisting of databases administrator, business intelligence developer, and report analysts.

Kennesaw State Univ., Kennesaw, GA: Data Warehouse Manager, Jan 2011 - Feb 2014

- Trained and mentored IT staff and student assistants (8) on all aspects of business intelligence software tools, data collection, cleaning, consolidation and report generation for statistical research purposes.
- Worked as Data Manager & IT Systems Architect for a research grant study, **Teacher Quality Partnership (TQP)** at KSU; and then, continued as Data Warehouse Manager and SAS Business Intelligence (BI) and Data Integration (DI) Coordinator at the Office of Institutional Research and Center for Institutional Effectiveness (Enterprise Information Management division); and my responsibilities included:
 - As Data Warehouse Manager and Business Intelligence Architect - managed BI metadata and its use in reporting and analytics utilizing the SAS Business Intelligence Platform.
 - Served as the metadata administrator for KSU's data warehouse, data marts, and transactional databases such as Banner and PeopleSoft/Oracle.
 - Managed and supported activities of IT infrastructure and System Administration of Windows/Linux server environments, virtual network and storage support.
 - Installed and upgraded databases, and supported application software and other software tools related to database management system administration.
 - Created, configured and modified database objects, storage parameters, database parameters.
 - Monitored and administered database management system security including management of user roles, administration of memory-quotas and detection and resolution of security issues.
 - Implemented database backup and recovery processes.
 - Troubleshot database problems and implemented corrective measures as required.
 - Migrated database objects and programs from one environment to another.

- Monitored database error logs to ensure proper capacity & availability; executed database software installations, database creations/configurations and loads; monitored performance and tuning of primary and backup systems and applied oracle patches at regular intervals.
- Designed and developed user-friendly functional data marts such as faculty data mart, human resources, and financial, academic, student data marts and facilitated data management functions of SAS to deliver decision-support information to KSU departments.
- Designed, managed, and supported current ETL loads, such as academic staging, HR staging, and financial staging dataloads derived from multiple data sources such as, PeopleSoft Financials, ADP HR system, and SunGard Banner Information systems.
- Modified and maintained existing extract, transform, and load (ETL) routines as well as assisted in analysis of new requirements and enhancements of existing routines and queries.
- Designed cubes, information maps and created and managed interactive web-based reports such as: Budget Prep, Accounts Receivable, Comprehensive Financial Revenue, Expenses, Pre-encumbrances, Payroll Services reports, P-Card, Budget Journals, Grants, e-procurement purchasing reports, and automated dashboard analytics - for various offices and academic departments across the university.
- Created, and supported data Integration (DI) job loads and schedules; added new tasks to the existing DI jobs and/or created new DI jobs as and when needed.
- Gained working knowledge with clinical research and laboratory research datasets pertaining to **School of Nursing, Public health sciences**; provided technical direction and consultation to produce accurate unit-level and program-level information and analysis for program accreditation reporting and ad hoc report needs.
- As TQP IT Systems Architect - worked with diversified faculty and staff in the university to identify, collect and analyze business requirements.
- Acted as an IT lead and liaison between KSU faculty and Cobb County School District teachers.
- Designed and implemented software web application functionalities for student, parent, teacher-based survey forms and related modules.
- Designed survey questionnaires and assisted with statistical qualitative and quantitative measures - including predictive analytics modeling, sampling, forecasts and projections, covariance and correlation analysis etc.
- Collected data requirements, designed and implemented custom databases; integrated application user interfaces with back-end databases. Created and maintained data dictionary and metadata;
- Created and maintained project documentation.

GA Dept. of Transportation, Atlanta: IT Analyst [Sr. Programmer/Database Analyst] 2003 - 2010

- Interacted with all levels of state personnel in a way that promotes respect, encourages cooperation and contributes to excellent performance. Maintained a professional, customer-focused outlook while leading teams that provide IT solutions and services to internal and external customers.
- Mentored junior programmers/database developers and presented workshops, demos and training classes on the state-of-the-art databases, programming tools, techniques and development standards.
- Associated with full-lifecycle development of software applications - leading from the front in the areas of project management, requirements collection and analysis; strategic planning, budgetary planning and analysis, infrastructure systems design and support, coding, testing, implementation and production support; database design, development and administration of intra-departmental IT Systems, projects and web applications such as:
 - **Data Dictionary**- an online metadata repository application used to upload, retrieve and manage enterprise databases metadata; search database objects (columns, tables, views etc) in the enterprise-wide databases and view descriptions; generate various reports such as valid values report, constraints report etc.; administer functionalities such as adding application schemas, DB server instances, and uploading descriptions/definitions of data elements.

- **Georgia Utility Permitting System (GUPS)** - an online utility permitting portal for Ga. utility companies that provide permitting services such as creating member group accounts, applying for utility permits, tracking approval process, managing the user accounts
 - **Outdoor Advertising Sign Information System(OASIS)** - for processing outdoor advertising sign permits for private companies/individuals along the Interstate and GDOT Highways
 - **Office of equipment management Requisition Database for Equipment Requests (ORDER)** - maintains and manages GDOT equipment requests and budgets by Districts, the receipt and issues of state fleet, supplements the Fleet Anywhere database and inventory application.
 - **Database for Repairs Involving Vehicles/Equipment (DRIVE)** - used to process repair requests, vendor bidding approvals, and to manage the vehicle database.
 - Office of Equipment Management(OEM) Automation - Motor Vehicle Usage(MVU) and Motor Vehicle Assignment(MVA) applications - used to track, manage, and report the assignment and usage of motor vehicles to GDOT employees and maintain the vehicle inventory.
 - All applications are being implemented in Adobe/Macromedia ColdFusion MX (6/7/8) and Dream Weaver MX Environment, C/C++/Java using tools such as .NET, J2EE, JRUN, SharePoint, Oracle and SQL Server DBs.
- Analyzed customers' information needs, business problems and opportunities to determine the most efficient and effective database systems/programming solutions; Designed data models and created database objects and associated with full life-cycle development of software systems.
 - Evaluated, updated and/or altered existing databases and applications either to meet the customer's current business requirements or to correct existing or potential problems. Debug and test new or modified programs.
 - Performed database administration tasks such as configuration of oracle servers, creation of database schema objects, roles, and users; backup and recovery operations, tuning and performance monitoring tasks; database design and data modeling activities.
 - Provided training and operational guidance to customers, technical support personnel in the operation and use of application software systems. Assisted customers in resolving complex technical issues and concerns.

GEORGIA STATE UNIVERSITY (GSU), ATLANTA: GRADUATE TEACHING/RESEARCH ASSISTANT 2001-2002

- Tutored and assisted undergrad math students in College Algebra, Precalculus, Trigonometry, Calculus, Numerical analysis, and Discrete mathematics. Provided software application and database systems support to the Department of Communications; Responsible for department website, database maintenance; hardware and software set up and installations; Resolved faculty and staff personal computer issues; Assisted system admin with the maintenance and support of student information systems (e.g., Banner) and departmental networking operations.

DEFENCE ELECTRONICS RESEARCH LABORATORY (DLRL), HYDERABAD, INDIA: RESEARCH SCIENTIST [LEVEL C AND B] 1993-2000

SOFTWARE APPLICATION AND DATABASE DEVELOPMENT

- Associated with the full-life cycle development of high-frequency embedded electronic subsystems, including analysis, design, simulation, development and production of microwave and radio frequency signal generators, such as digitally tuned oscillators (DTOs) for use in electronic counter measure (ECM) applications.
- Mentored junior staff and trainees with concepts of programming languages, databases, web development technologies, and Microsoft office products such as Word, PowerPoint, Excel.
- Analyzed and solved coding issues; Diagnosed and resolved subsystems operational problems; Debugged complex programming problems, upgraded existing code and applications; Performed

quality assurance activities. Trained technical staff with computer aided design (CAD) tools and programming workshops.

RESEARCH CONTRIBUTIONS:

The following list provides contributions of Dr. Manyam's research work such as lectures, seminars, articles presented at scientific conferences and manuscripts published in peer-reviewed journals recently. More information on Dr. Manyam's research interests/projects is available at his profile page here: [Rameshbabu Manyam | Emory University](#)

Selective conference papers and presentations

- Manyam R, Bao C, He Y, Zhang Y, Keeling WB. Interpretable Artificial Intelligence Risk Model to Predict Readmission after Coronary Artery Bypass Grafting. The American Association for Thoracic Surgery 106th Annual Meeting; 2026 May 2; Chicago, IL USA. c2026. [Forthcoming]
- Manyam R, He Y, Bao C, Gupta P, Zhang Y. Interpretable Artificial Intelligence-enabled Risk Model to Predict Pneumonia after Coronary Artery Bypass Grafting. Eastern North American Region 2025 Spring Meeting (ENAR); 2025 March 15; Indianapolis, IN, USA. c2026. [Forthcoming]
- Manyam R, Yun J, Lou P, Scott L, Krafty R. Predicting Risk Factors for Suicidal Ideation using Interpretable Artificial Intelligence Methods. 2025 IEEE International Conference on Bioinformatics and Biomedicine (BIBM). 2025 Dec 15; Wuhan, China. c2025.
- Manyam R. (Keynote speaker). Role of Artificial Intelligence in Health Sciences Research. 9th International Conference on Recent Advances in Science; 2025 March 6; Invertis University, Bareilly, India. c2025.
- Manyam R (Plenary speaker). Unraveling the Potential of AI for Predictive Analytics in Healthcare. International Conference on Artificial Intelligence in Education and Healthcare: A New Era in Public Health Solutions; 2025 Feb 22; Aligarh Muslim University, Aligarh, India. c2025.
- Manyam R. Interpretable Machine Learning to Predict Blood Transfusion after Surgery for Femoral Shaft Fractures. Eastern North American Region of the International Biometric Society Spring Meeting; 2025 Mar 23; New Orleans, Louisiana, USA. c2025.
- Manyam R. Lou P. AI-driven Models with Effective Feature Selection Accurately Predict ICU Admission after Laparoscopic Cholecystectomy, 2024 IEEE International Conference on Bioinformatics and Biomedicine (BIBM); 2024 Dec 3; Lisbon, Portugal. c2024.
- Manyam R, Melese M, Zhang Y, Hu X, Keeling WB. Machine Learning to Predict 30-day Readmission after Coronary Artery Bypass Grafting: Ready for Prime Time? 71st Annual Meeting of the Southern Thoracic Surgical Association, 2024 Nov 7; Austin, TX, USA, c2024.
- Manyam R. Ensemble Learning Model with Effective Feature Selection For Accurately Predicting Failure to Rescue After Coronary Artery Bypass Grafting. The Southern Regional Council on Statistics Summer Research Conference; 2024 June 3; Clemson, SC, USA. c2024.
- Manyam R, Shen H, Liu Z, Zhang Y, Hu XB, Keeling WB. Machine Learning Algorithms Accurately Predict Risk Factors for Failure to Rescue After Coronary Artery Bypass Grafting. 60th Annual Meeting of the Society of Thoracic Surgeons; 2024 January 27; San Antonio, TX, USA. c2024.

Manyam R, Zhang Y, Binongo J, Rosenblum JM, Keeling, W B. A Simple, Scalable And Portable Machine Learning Model With Effective Feature Selection For Accurately Predicting 30-day Readmission After Discharge Following CABG. *100th Annual Meeting of the Association of American Thoracic Surgeons*; 2020 May 22; Virtual; New York, NY, USA. c2020.

Manyam R, Zhang Y, Binongo J, Rosenblum JM, Keeling, WB. Unraveling the impact of time-dependent perioperative variables on 30-day readmission following CABG. *45th Annual Meeting of Western Thoracic and Surgical Association*; 2019 Jun 26; Olympic Valley, CA, USA. c2019. Available at: <https://meetings.westernthoracic.org/abstracts/2019/CF6.cgi>

Manyam R, Zhang Y, Binongo J, Rosenblum JM, Keeling WB. A New Scalable, Portable Predictive Analytics Framework for Predicting Time-to-event Outcomes in Healthcare. Paper presented at: 2nd Symposium on Machine Learning in Science and Engineering Symposium; 2019 Jun 9; Atlanta, GA, USA.

Manyam R, Zhang Y, Keeling WB, Binongo J, Kayatta, M, Carter, S. Deep Learning Approach for Predicting 30 Day Readmissions after Coronary Artery Bypass Graft Surgery. Paper presented at: Workshop on Machine Learning for Health, Thirty-second Conference on Neural Information Processing Systems (NeurIPS, 2018); 2018 Dec 8; Montreal, Canada. Available at: arXiv preprint arXiv:1812.00596.

Recent Publications

Manyam R, Bao C, He Y, Zhang Y, Keeling WB. Interpretable artificial intelligence risk model to predict readmission after coronary artery bypass grafting *J Thorac Cardiovasc Surg.* 2026. [In Review.]

Warner S, Bao C, He Y, Wiltse Nicely K, Carlson N, Chandler R, Manyam R. Leveraging Machine Learning to Explore Anesthesia Exposure and Severe Maternal Morbidity in Nulliparous Women: A Secondary Analysis of nuMoM2b. *The British Journal of Anaesthesia.* 2026. [In Review.]

Manyam R, Gupta P, Lou P, Guo R, Carro A, Heinz E. Interpretable artificial intelligence for predicting blood transfusion after surgery for femoral shaft fractures: a retrospective analysis. *Indian Journal of Anaesthesia.* 2026. [In Press].

Manyam R, Yun J, Lou P, Scott L, Krafty R. Predicting Risk Factors for Suicidal Ideation using Interpretable Artificial Intelligence Methods. In *2025 IEEE International Conference on Bioinformatics and Biomedicine (BIBM).* 2025 Dec 15;7028-7035. doi: 10.1109/BIBM66473.2025.11357209.

Manyam R, Lou P, Shen HJ, Liu Z, Zhang Y, Hu X, Keeling WB. Interpretable Artificial Intelligence to Predict Preoperative Risk Factors for Failure to Rescue after Coronary Artery Bypass Grafting. *J Thorac Cardiovasc Surg.* 2025 Sep 30;. doi: 10.1016/j.jtcvs.2025.09.039. [Epub ahead of print] PubMed PMID: 41038441.

Gupta P, Shen HJ, Patel K, Guo R, Heinz ER, Manyam R. Artificial intelligence for predicting 30-day mortality after surgery for femoral shaft fractures: A retrospective study. *Indian J Anaesth.* 2025 Jun;69(6):606-614. doi: 10.4103/ija.ija_1060_24. PubMed PMID: 40470393; PMCID: PMC12133034.

Dinga JN, Ayah F, Anu F, Qin H, Gamua SD, Tufon AK, Amougou ME, Manyam R. Correlation of Inflammatory Biomarkers and IgG4 Antibodies with Malaria in Cameroon's Buea Municipality Children. *Diseases.* 2025;13(4):123. <https://doi.org/10.3390/diseases13040123>. PMID: 40277833; PMCID: PMC12025989.

Dinga JN, Ngunjoh FN, Tendongfor N, Mbah GE, Qin H, Ahmed I, Muki SE, Gamua SD, Manyam R, Titanji VPK. Determinants of Under-Immunization Among Children Between 0 and 59 Months in Buea Municipality, South Western Cameroon: Implications for National Immunization Campaign. *Healthcare.* 2025;13(3):239. <https://doi.org/10.3390/healthcare13030239>. PMCID: PMC11817273.

Lou P and Manyam R. AI-driven Models with Effective Feature Selection Accurately Predict ICU Admission after Laparoscopic Cholecystectomy. In 2024 IEEE International Conference on Bioinformatics and Biomedicine (BIBM), 2025 Jan; 6482-6489. doi: 10.1109/BIBM62325.2024.10821955.

Dinga JN, Anu EF, Feumba RD, Qin H, Ayah F, Ayiseh RB, Shey RA, Gamua SD, Tufon AK, Manyam R, Titanji VPK. Micronutrient Biomarkers and Their Association with Malaria Infection in Children in Buea Health District, Cameroon. *Trop Med Infect Dis.* 2024;9(12):303. doi: 10.3390/tropicalmed9120303. PMID: 39728830; PMCID: PMC11679706.

Manyam R, Zhang Y, Binongo J, Rosenblum JM, Keeling WB. Unraveling the impact of time-dependent perioperative variables on 30-day readmission after coronary artery bypass surgery. *J Thorac Cardiovasc Surg.* 2022;164(3):943-955.e7. doi: 10.1016/j.jtcvs.2020.09.076. PMID: 33127082.