



## Tushar Mungle

Postdoctoral Scholar, Biomedical Informatics

### Bio

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#### BIO

Tushar Mungle is postdoctoral scholar in Boussard lab at Stanford Center for Biomedical Informatics Research. He received bachelor's and master's degree in computer science followed by Ph.D. in clinical informatics. His work involve deducing inferences from electronic health records/clinical data and provide feasible solutions to existing bedside or physician encountered clinical problems. Previously at Tata Medical Center Kolkata, India, he was involved in analyzing pediatric acute lymphoblastic leukemia maintenance therapy (MT) data and developed tools to standardize the MT practice. Additionally, he investigated clinical data pertaining to ICiCLE-ALL-14 clinical trial sub-studies, and gallbladder cancer. He is extensively trained in R and python programming languages, statistics, longitudinal data analysis and predictive modeling.

#### HONORS AND AWARDS

- Special Award for Oral Presentation, XIIIth SIOP Asia Conference (2021)
- Qualified "Graduate Aptitude Test in Engineering" (GATE), Department of Higher Education, Ministry of Education (MoE), Government of India. (2012)
- University Rank 3rd, Bachelor of Engineering, RTMN University (2011)

#### PROFESSIONAL EDUCATION

- Ph.D., Indian Institute of Technology Kharagpur , Clinical Informatics (2020)
- Master of Technology, Manipal Institute of Technology , Computer Science and Technology (2014)
- Bachelor of Engineering, SVPCET, RTMN University , Computer Engineering (2011)

#### STANFORD ADVISORS

- Mark Musen, Postdoctoral Research Mentor
- Tina Hernandez-Boussard, Postdoctoral Faculty Sponsor

#### LINKS

- Google Scholar: <https://scholar.google.com/citations?hl=en&user=7YMfkdIAAAAJ>

### Research & Scholarship

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#### RESEARCH INTERESTS

- Data Sciences

## CURRENT RESEARCH AND SCHOLARLY INTERESTS

Use electronic health records (EHRs) to identify and classify common ocular diseases such as glaucoma, diabetic retinopathy, and macular degeneration. We aim to develop an approach to accurately identify these conditions using EHRs. This will be followed by cluster analysis to identify novel subtypes of these conditions that have not been recognized before. Finally, we will develop an approach to extract outcome data from EHRs for patients with these conditions in the primary care setting.

## Publications

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### PUBLICATIONS

- **Hybrid Email and Outpatient Clinics to Optimize Maintenance Therapy in Acute Lymphoblastic Leukemia.** *Journal of pediatric hematology/oncology*  
Mungle, T., Mahadevan, A., Das, P., Mehta, A. K., Gogoi, M. P., Jana, B., Ghara, N., Ghosh, D., Saha, V., Krishnan, S.  
2023
- **Maintenance Treatment in Acute Lymphoblastic Leukemia: A Clinical Primer.** *Indian journal of pediatrics*  
Krishnan, S., Mahadevan, A., Mungle, T., Gogoi, M. P., Saha, V.  
2023
- **Characteristics and outcomes of gallbladder cancer patients at the Tata Medical Center, Kolkata 2017-2019** *CANCER MEDICINE*  
Dutta, A., Mungle, T., Chowdhury, N., Banerjee, P., Gehani, A., Sen, S., Mallath, M., Roy, P., Krishnan, S., Ganguly, S., Banerjee, S., Roy, M., Saha, et al  
2023: 9293-9302
- **Comparative treatment costs of risk-stratified therapy for childhood acute lymphoblastic leukemia in India** *CANCER MEDICINE*  
Mungle, T., Das, N., Pal, S., Gogoi, M., Das, P., Ghara, N., Ghosh, D., Arora, R., Bhakta, N., Saha, V., Krishnan, S.  
2022: 3499-3508
- **Allopurinol adjuvant in acute lymphoblastic leukaemia maintenance treatment** *25th Annual Conference of the Pediatric Hematology Oncology*  
Kamle, A., Ghara, N., Ghosh, D., Gogoi, M., Jana, B., Mungle, T.  
2022: S48
- **Developing an automated dose advice programme to assist adaptive antimetabolite dose decisions during maintenance therapy in acute lymphoblastic leukaemia** *XIIIth SIOP ASIA CONFERENCE*  
Mungle, T., Gogoi, M., Mitra, S., Poddar, M., Roy, P., Bhattacharya, B., Mukhopadhyay, J., Saha, V., Bhattacharya, S., Krishnan, S.  
2020: S10
- **Web-Enabled Distributed Health-Care Framework for Automated Malaria Parasite Classification: an E-Health Approach** *JOURNAL OF MEDICAL SYSTEMS*  
Maity, M., Dhane, D., Mungle, T., Maiti, A. K., Chakraborty, C.  
2017; 41 (12): 192
- **Fuzzy spectral clustering for automated delineation of chronic wound region using digital images** *COMPUTERS IN BIOLOGY AND MEDICINE*  
Dhane, D., Maity, M., Mungle, T., Bar, C., Achar, A., Kolekar, M., Chakraborty, C.  
2017; 89: 551-560
- **MRF-ANN: a machine learning approach for automated ER scoring of breast cancer immunohistochemical images** *JOURNAL OF MICROSCOPY*  
Mungle, T., Tewary, S., Das, D. K., Arun, I., Basak, B., Agarwal, S., Ahmed, R., Chatterjee, S., Chakraborty, C.  
2017; 267 (2): 117-129
- **An Ensemble Rule Learning Approach for Automated Morphological Classification of Erythrocytes** *JOURNAL OF MEDICAL SYSTEMS*  
Maity, M., Mungle, T., Dhane, D., Maiti, A. K., Chakraborty, C.  
2017; 41 (4): 56
- **Automated characterization and counting of Ki-67 protein for breast cancer prognosis: A quantitative immunohistochemistry approach** *COMPUTER METHODS AND PROGRAMS IN BIOMEDICINE*  
Mungle, T., Tewary, S., Arun, I., Basak, B., Agarwal, S., Ahmed, R., Chatterjee, S., Maity, A., Chakraborty, C.  
2017; 139: 149-161
- **A Secure One-Time Password Authentication Scheme Using Image Texture Features**  
Maity, M., Dhane, D., Mungle, T., Chakraborty, R., Deokamble, V., Chakraborty, C., Mueller, P., Thampi, S. M., Bhuiyan, M. Z., Ko, R., Doss, R., Calero, J. M.

