Protiva Rahman

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EDUCATION

The Ohio State University, Columbus, Ohio
Ph.D. in Computer Science and Engineering, 2020
B.S. in Computer and Information Science, Minor in Mathematics, *cum laude,* 2015

RESEARCH AND TEACHING EXPERIENCE

Vanderbilt University Medical Center, Biomedical Informatics
Postdoctoral Research Fellow (*September 2020–present),* **PI**: Dr. Daniel Fabbri
- Extracting Unstructured Data from Electronic Health Records and Biomedical Literature

National Library of Medicine, National Center for Biotechnology Information
Scientific Visitor (*May 2019 - August 2019),* **PI**: Dr. Zhiyong Lu
- User Evaluation of Biomedical Literature Retrieval

The Ohio State University, Computer Science and Engineering
Graduate Research Associate (August 2015 – August 2020*),* **PI**: Drs. Arnab Nandi and Courtney Hebert
- Amplifying Domain Expertise in Medical Data Pipelines

The Ohio State University, Computer Science and Engineering
Grader for Introduction to Programming in Java (*January 2013–April 2013)*
- Held office hours and graded homework assignments and lab projects for 45 students

PUBLICATIONS

1. **Protiva Rahman,** Michele LeNoue-Newton, Kenneth L. Kehl et al. Clinical and Genomic Predictors of Central Nervous System Metastases in Non-Small Cell Lung Cancer Patients: An AACR Project GENIE Study. *Under Review at Journal of Clinical Oncology Precision Oncology.*
2. **Protiva Rahman**, Cheng Ye, Kathleen F. Mittendorf, Michele LeNoue-Newton, Christine Micheel, Jan Wolber, Travis Osterman, Daniel Fabbri. Accelerated Curation of Checkpoint Inhibitor-Induced Colitis Cases from Electronic Health Records. *Under Review at Journal of American Medical Informatics Association Open.*
3. **Protiva Rahman,** Daniel Fabbri. Semi-Automated Data Curation from Biomedical Literature. *Proceedings of American Medical Informatics Association 2022.*
4. **Protiva Rahman,** Arnab Nandi, Courtney Hebert. Amplifying Domain Expertise in Medical Data Pipelines. *Journal of Medical Internet Research Medical Informatics 2020.*
5. **Protiva Rahman,** Lilong Jiang, Arnab Nandi. Evaluating Interactive Data Systems: Survey and Case Studies. *The VLDB Journal 2020.*
6. **Protiva Rahman,** Arnab Nandi. TRANSFORMER: A Database-Driven Approach to Generating Forms for Constrained Interaction. *Proc. of the 24th International Conference on Intelligent User Interfaces 2019 (acceptance rate: 25%).*
7. **Protiva Rahman,** Courtney Hebert, Arnab Nandi. ICARUS: Minimizing Human Effort in Iterative Data Completion. *Proc. of the VLDB Endowment 2018 (acceptance rate: 17%).*
8. **Protiva Rahman,** Jian Chen, Courtney Hebert, et al. Exploratory Visualizations of Rules for Validation of Expert Decisions. 3rd *Workshop on Data Systems for Interactive Analysis, Proceedings of the IEEE Visualization Conference 2018.*
9. Courtney Hebert, Yuan Gao, **Protiva Rahman**, Courtney Dewart, Mark Lustberg, Preeti Pancholi, Kurt Stevenson, Nirav Shah, Erinn M Hade. Prediction of antibiotic susceptibility for urinary tract infection in a hospital setting. *Antimicrobial Agents and Chemotherapy 2020.*

10. Courtney Dewart, Yuan Gao, **Protiva Rahman**, et al. Penicillin Allergy and Association with Ciprofloxacin Coverage in Community-onset Urinary Tract Infection. *Journal of Infection Control & Hospital Epidemiology 2018.*
11. Megan M Shuey, Rachel R Xiang, M Elizabeth Moss, Brigett V Carvajal, Yihua Wang, Nicholas Camarda, Daniel Fabbri, **Protiva Rahman**, Jacob Ramsey, Alec Stepanian, Paola Sebastiani, Quinn S Wells, Joshua A Beckman, Iris Z Jaffe. Systems Approach to Integrating Preclinical Apolipoprotein E-Knockout Investigations Reveals Novel Etiologic Pathways and Master Atherosclerosis Network in Humans. *Arteriosclerosis, thrombosis, and vascular biology 2022.*

CONFERENCE PRESENTATIONS
1. **Protiva Rahman**, Cheng Ye, Kate Mittendorf, Michele LeNoue-Newton, Christine Micheel, Daniel Fabbri. Accelerated Data Curation of Colitis Cases. *AMIA 2022.*
2. **Protiva Rahman**, Daniel Fabbri. Automatic Data Curation from Unstructured Text. *AMIA 2021.*
3. **Protiva Rahman**, Michele LeNoue-Newton, Sandip Chaugai, et al. Clinical and genomic predictors of brain metastases (BM) in non-small cell lung cancer (NSCLC): An AACR Project GENIE analysis. *ASCO 2021.*
4. **Protiva Rahman,** Erinn Hade, Emily Patterson, Courtney Hebert. Amplifying Domain Expertise in Antimicrobial Data Pipeline. *AMIA Oral Presentation 2020.*
5. **Protiva Rahman,** Elisabeth Root, Susan D. Moffatt-Bruce, Courtney Hebert. Designing an Interface for a Hospital Geographic Information System. *AMIA 2020.*
6. **Protiva Rahman**, Erinn Hade, Courtney Dewart et al. Predicting Empiric Antibiotic Coverage based on Patient Factors. *AMIA 2019.*
7. **Protiva Rahman,** Courtney Hebert, Arnab Nandi. Enabling Effective Data Interaction for Domain Experts. *IEEE ICHI PhD Symposium 2018.*
8. **Protiva Rahman**, Erinn Hade, Arnab Nandi et al. Derivation of Expert Consensus Rules for Missing Antimicrobial Susceptibility Data. *AMIA 2018.*
9. Lilong Jiang, **Protiva Rahman,** Arnab Nandi. Evaluating Interactive Data Systems: Workloads, Metrics, and Guidelines. *SIGMOD 2018 Tutorial.*
10. **Protiva Rahman**, Courtney Hebert, Albert Lai. Parsing Complex Microbiology Data for Secondary Use. *AMIA 2016.*
11. Kathleen F Mittendorf, Christine Micheel, Michele LeNoue-Newton, **Protiva Rahman**, Daniel Fabbri, Jan Wolber, Travis John Osterman, Mohamed Fouda, Ben Ho Park. Overcoming barriers in academic-industry partnerships to improve predictive modeling in immuno-oncology. *ASCO 2021.*

PATENT APPLICATIONS
- Rewriting Forms for Constrained Interaction. USPTO: 15/855,515

INVITED TALKS
- Vanderbilt University, "Superheroes for Superbugs", Feb 2020.
- UC Berkeley, "Amplifying Domain Expertise to Combat Antimicrobial Resistance", Jan 2020.
- University of Southern California. "Amplifying Domain Expertise in Data Pipelines", May 2019.

INDUSTRY EXPERIENCE
Nationwide Financial, NFIT Reporting and Data Services
Application Developer Intern (*May 2014-August 2014)*
- Developed SQL reports and Informatica mappings for NF sales

Dahbashi Engineering UAE
Engineering Intern (*August 2010 - September 2010)*
- Improved company's Oracle management information system

AWARDS
- SIGMOD Student Travel Award *(2018)*
- IEEE ICHI Doctoral Consortium Student Travel Award *(2018)*
- OSU WEGC Outstanding Council Member *(2018)*
- Marianna Russell Technology Grant *(2017)*
- CRA-W Grad Cohort *(2017)*
- Data Quality in the Era of Big Data Workshop Travel Fellowship *(2016)*
- ACM-W Grace Hopper Travel Scholarship *(2016)*

LEADERSHIP AND SERVICE
- PC Member: EDML 2019, co-located with Siam International Conference on Data Mining
- Reviewer: ACM CHI 2020, AMIA 2019,2021-2022, ACM TODS 2019
- AMIA Conference First Look Student Panel 2020
- IUI Conference Student Volunteer 2019
- Women in Engineering Graduate Council, *Member:2017, SWE Rep:2018, VP:2019*
- A Kid Again, *Awareness Chair (2012 – 2014)*
- International Student Organization, *Secretary (2012 – 2013)*
- Phi Beta Kappa
- National Residence Hall Honorary

ADDITIONAL WORK EXPERIENCE
The Ohio State University Housing, Barrett Complex
Resident Manager (*August 2014-April 2015*)
- Managed a 24-hour desk which served the residents and guests of a 350-person residence
- Hired, trained, and supervised a staff of 17 student employees
- Conducted staff meetings with a focus on professional development and diversity and inclusion

The Ohio State University Housing, Morrill Tower
Resident Advisor (*September 2012-April 2014*)
- Held proactive conversations with residents to assist with their academic needs and concerns
- Organized programs to build a safe, fun and close-knit community for 69 residents

Le Meridien Dubai, UAE
Sales and Marketing Intern (*May 2013 – June 2013*)
- Interacted with magazine editors to build media relations
- Persuaded clients to increase business with the hotel during sales calls

SKILLS
- Java, C++, C, Python, SQL, HTML, Javascript, CSS, Object Oriented Programming
- Fluent in English, Bengali, Hindi and intermediate knowledge of French