Riddhiman Adib, Ph.D.

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- *5+ years of applied experience in Machine Learning, Data Science & Software Engineering for healthcare*
- *Specializing in Causal Inference, A/B Testing (Experiment design), Electronic Healthcare Data, and Health Informatics.*
- *15+ publications and service as a reviewer in 10+ conferences and journals in the Healthcare and Machine Learning domain.*

PROFESSIONAL EXPERIENCE

- **Research Scientist** *Apr. 2024–Present*
  California Department of Public Health — Sacramento, CA
  Responsibilities: Research Scientist 3, Data and Analytics Divison, Center for Health Care Quality (Apr 2024–present)
  - Generated quality measuring metrics from CMS MDS datasets for skilled nursing facilities and contributed to public-facing data dashboards on quality measures, improving data management pipelines
  - Mentored Interns in learning and exploring data analysis for healthcare quality
- **Research Engineer** *Jun. 2022-Apr. 2024*
  Oregon Clinical & Translational Research Institute — (Remote) Portland, OR
  Responsibilities: Informatics Scholar (Jun 2022–Oct 2023) and Research Engineer (Nov 2023–present)
  - Applied Causal Inference theories to identify causal models for drug efficacy (AI in Medicine 2023) (arxiv)
  - Introduced hierarchy of causal knowledge for causal graph identification from data and background knowledge (arxiv)
  - Trained & deployed ML models (XGBoost, Logistic Regression, Causal models) for stakeholders' (clinicians) use
- **Summer Intern** *Jun. 2019–Jul. 2019*
  Regenstrief Center for Healthcare Engineering — West Lafayette, IN
  Responsibilities: Summer internship as a visiting scholar
  - Curated targeted population cohort and relevant covariates from large electronic healthcare dataset using PostgreSQL, resulting in ~1400 Delirium patients from large MIMIC-III EHR on 50k patients (arxiv)
- **Graduate Researcher** *Aug. 2017–May 2022*
  Ubicomp Lab, Marquette University — Milwaukee, WI
  Responsibilities: Research Assistant (2nd-4th year) and Teaching Assistant (1st, 5th year)
  - Machine learning-driven analysis of Twitter text data (happy moments) with natural language processing (COMPSAC 2019)
  - Development of a mHealth App (*myFAMI*) for family members of pediatric transplant recipients (JMIR 2022)
  - Development of an electronic peer-mentor support app (*iPeer*) for supporting mental health of Veterans (COMPSAC 2019)
- **Software Engineer** *Oct. 2015–May 2017*
  Harriken.com Limited — Dhaka, Bangladesh
  Responsibilities: Android Lead (Apr 2016–May 2017) and Software Developer (Oct 2015–Mar 2016)
  - Designed, developed & deployed a restaurant-discovery Android app (*Harriken*) with web APIs for a startup, resulting in a user-friendly interface, real-time location-based recommendations & 10K+ Google Play Store downloads (Crunchbase)

EDUCATION

- **Ph.D. in Computer Science** (Dissertation focus: Causal Inference, Statistics, Math) *Aug. 2017–May 2022*
  Marquette University — Milwaukee, WI
- **Masters in Computing** (Specialization: Big Data & Data Analysis) *Aug. 2017–May 2020*
  Marquette University — Milwaukee, WI
- **Bachelor of Science in Electrical & Electronics Engineering** *May 2010–Sep. 2015*
  Bangladesh University of Engineering and Technology — Dhaka, Bangladesh

SKILLS AND CERTIFICATES

- ***Programming Languages:*** Python *(Most proficient)*, SQL, R, Java, Matlab, C/C++
- ***Frameworks and Tools:*** Pandas, Numpy, Scikit-learn, Do-Why, bnlearn, Tensorflow, Keras, PyTorch, Android Framework, Django, Cosmos in Epic, AWS, Bash, Linux, Database Cloud Infrastructures
- ***Research Area:*** Causal Inference, A/B Testing, Predictive models, Machine Learning, Data Science, Bioinformatics, mHealth
- ***Online Certifications:*** Causal Diagrams: Draw Your Assumptions Before Your Conclusions, Neural Networks and Deep Learning, Programming Mobile Applications for Android
- ***Soft Skills:*** Critical thinking, Fast-learning capabilities, Collaboration experiences, Strong interpersonal skills, Multi-tasking

OPEN SOURCE CONTRIBUTIONS

- **BottomNavBar** *(~200 Github stars)*: Open-source Android library to add a bottom navigation bar to the app
- **FormMaster** *(~150 Github stars)*: Open-source Android library to easily build and use larger forms