Riddhiman Adib, Ph.D.

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- 6+ years of applied experience in Data Science and Machine Learning for healthcare
- Specializing in Data Science & Analytics, Machine Learning, Causal Inference, Experiment design, and Health Informatics.
- 15+ research publications (with 150+ citations) under the Healthcare and Machine Learning domain.

PROFESSIONAL EXPERIENCE

• Research Scientist

Apr. 2024-Present

Sacramento, CA

California Department of Public Health

Responsibilities: Research Scientist 3, Data and Analytics Division, Center for Health Care Quality (Apr 2024–present)

- Trained and deployed **machine learning models** (*regression, decision trees, AutoML*) on CA state licensing and certification data to identify healthcare facilities at risk of non-compliance using the **Azure Databricks** platform
- o Calculated and maintained **CMS**-developed Quality Measures for individual skilled nursing facilities, in **SQL**, supporting stakeholder reporting for the Center for Health Care Quality field offices across California.
- Performed **record linkage** across state and federal data sources to identify facilities accurately, and led data reporting initiatives to publish validated datasets on the **CalHHS public data portal**.
- Research Engineer

Jun. 2022-Apr. 2024

(Remote) Portland, OR

Oregon Clinical & Translational Research Institute

Responsibilities: Informatics Scholar (Jun 2022–Oct 2023) and Research Engineer (Nov 2023–present)

- o Applied Causal Inference theories to identify causal models for drug efficacy (<u>AI in Medicine 2023</u>) (<u>arxiv</u>)
- o Introduced hierarchy of causal knowledge for causal graph identification from data and background knowledge (<u>arxiv</u>)

• **Summer Intern**Regenstrief Center for Healthcare Engineering

Jun. 2019–Jul. 2019

Regenstrief Center for Healthcare Engineering

West Lafayette, IN

o Curated Delirium population cohort (1.5k~) with covariates from large EHR data (MIMIC-III) using PostgreSQL (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)
- $\circ \quad \text{Machine learning-driven analysis of Twitter text data (happy moments) with natural language processing (\underline{\text{COMPSAC 2019}})$
- o Developed Android apps for mHealth research (pediatric patients (<u>JMIR 2022</u>) & Veteran mental health (<u>COMPSAC 2019</u>))
- 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 & 10 K+ Google Play Store downloads (<u>Crunchbase</u>)

EDUCATION

• **Ph.D. in Computer Science** (Dissertation focus: Causal Inference, Statistics, Math) Marquette University

Aug. 2017–May 2022Milwaukee, WI

• Master's in Computing (Specialization: Big Data & Data Analysis)
Marquette University

Aug. 2017–May 2020Milwaukee, WI

• Bachelor of Science in Electrical & Electronics Engineering Bangladesh University of Engineering and Technology May 2010–Sep. 2015 Dhaka, Bangladesh

SKILLS AND CERTIFICATES

- Programming Languages: Python (Most proficient), SQL, R, Java, SAS, Matlab, C/C++
- *Frameworks and Tools:* Pandas, Numpy, Scikit-learn, Azure Databricks, Microsoft Azure Services, AWS, Tensorflow, Keras, PyTorch, Android Framework, Django, Bash, Linux, Database Cloud Infrastructures
- *Research Area:* Predictive models, Machine Learning, Data Science, Data Analytics, Health Informatics, Public Health, Artificial Intelligence, Causal Inference, A/B Testing
- 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