

## EDUCATION

<b>PhD in Computer Sciences</b> University of Massachusetts Amherst (UMass Amherst), MA, USA Advisor: Professor Hong Yu Research Focus: NLP in clinical domain, Biomedical informatics	Sep 2019 - Present
<b>Master of Science in Electrical and Electronic Engineering</b> Bangladesh University of Engineering and Technology (BUET), Dhaka, Bangladesh CGPA: 3.75/4.00	Apr 2017 - Jan 2021
<b>Bachelor of Science in Electrical and Electronic Engineering</b> Bangladesh University of Engineering and Technology (BUET), Dhaka, Bangladesh CGPA: 3.78/4.00	Apr 2012 - Feb 2017

## WORK EXPERIENCE

<b>Graduate Research Assistant</b> , BioNLP Lab, UMass Amherst, MA, USA <ul style="list-style-type: none"> <li>Advisor: Professor Hong Yu</li> <li>Area of Study: Natural Language Processing, Bioinformatics, Information Retrieval, Machine Learning</li> </ul>	Jan 2020 - Present
<b>Machine Learning Researcher</b> , Semion Ltd., Dhaka, Bangladesh <ul style="list-style-type: none"> <li>Providing Deep Learning solutions to clients</li> <li>Reproducing state of the art results from the literatures and applying them on proprietary datasets</li> <li>Design and development of necessary software infrastructures</li> </ul>	Mar 2017 - Feb 2019
<b>Intern</b> , Semion Ltd., Dhaka, Bangladesh	Aug 2016 - Dec 2016

## RESEARCH ARTICLES (g)

- [1] **A. Mitra**, B. P. S. Rawat, D. McManus, A. Kapoor, H. Yu. "Bleeding Entity Recognition in Electronic Health Records: A Comprehensive Analysis of End-to-End Systems", accepted at *AMIA Annual Symposium*, 2020
- [2] **A. Mitra**, K. Ashraf. "Sepsis Prediction and Vital Signs Ranking in Intensive Care Unit Patients", *arXiv preprint arXiv:1812.06686*, 2018 📄
- [3] R. Ahsan, **A. Mitra**, S. Omar, M. Z. R. Khan, M. A. Basith. "Sol-gel synthesis of DyCrO<sub>3</sub> and 10% Fe-doped DyCrO<sub>3</sub> nanoparticles with enhanced photocatalytic hydrogen production abilities", *RSC Advances*, 2018 📄
- [4] **A. Mitra**, T. Mostafiz, R. Ur Rashid. "Photoplay: An Android Application to Stimulate Children's Cognitive Development", *IEEE Region 10 Humanitarian Technology Conference (R10-HTC)*, 2017 📄 📄

## SELECTED RELEVANT PROJECTS

• <b>SemRad</b> , a Teleradiology Solution (Java, JavaFX, SQLite, MySQL)	2018
• <b>Faulty semiconductor wafer detection</b> from machine logs (Python, Tensorflow)	2018
• <b>Finding hotspots</b> in semiconductor wafer logs using LRP algorithm (C++, Python)	2018
• <b>Detection of Arrhythmia</b> based on discrete wavelet transform (DWT) features (Python, Keras)	2018
• <b>HealthGeek</b> , an Android app and <b>Differential Diagnoses</b> , an amazon Alexa skill (Java, Node.js, Flask)	2017
• <b>Risk factors detection</b> for heart diseases in diabetic patients (Python, Theano)	2017

## SKILLS

**Programming Languages:** Python, Java, C, C++, MATLAB, R  
**Machine Learning Frameworks:** Pytorch, Tensorflow, Keras, Scikit-learn, Theano  
**IDEs:** Android studio, Visual Studio, PyCharm, IntelliJ IDEA, Brackets, Arduino  
**Other Expertise:** Weka, Latex, Git, Microsoft Office

## ACHIEVEMENTS

449 <sup>th</sup> among 2172 teams (Top 21%), <b>Human Protein Atlas Image Classification</b> , Kaggle 📄	2019
355 <sup>th</sup> among 3234 teams (Top 11%), <b>TGS Salt Identification challenge</b> , Kaggle 📄	2018
12 <sup>th</sup> among 57 teams (Top 21%), <b>Bengali Handwritten Digit Recognition</b> , Kaggle 📄	2018
<b>Dean's List Award</b>	2013, 2017
<b>2<sup>nd</sup> Runner up</b> , Inter University Project Show, BUET	2015

## TEACHING EXPERIENCE

<b>Fall 2020</b>	Guest Lecturer, COMP.5800: Topics in computer Science, UMass Lowell
<b>Fall 2019</b>	Teaching Assistant, COMPSCI 121: Introduction to Computing