

ISHRAQ R RAHMAN

ishraq.r.rahman@gmail.com [◇ linkedin.com/in/ishraq-r-rahman](https://www.linkedin.com/in/ishraq-r-rahman) [◇ website](#)

EDUCATION

Master's in Computer Science, *Arizona State University* 2023-Present
- Recipient of "Engineering Graduate Fellowship".

Bachelor's in Computer Science, *Bangladesh University of Engineering & Technology* 2017-2022
- Dean's Merit List 2022.

SKILLS

Programming Languages	C, C++, Java, Typescript, Javascript, Python, PL/SQL
Front-End	React.js, HTML, SCSS, Material UI, Bootstrap
Back-End	Node.js, Express.js, Nest.js, Java Spring Boot, Django
Database	PostgreSQL, MySQL, MongoDB
Machine Learning	Numpy, Pandas, Seaborn, Scikit, Wav2Vec2
Data Analytics	Microsoft Excel, PowerBI, OpenRefine
Cloud Tools	AWS Elastic Beanstalk Environment, S3 Bucket, Elastic Container Service
Scripting Languages	Bash, Powershell, Lua
Miscellaneous	Selenium, Scrapy, Docker

RESEARCH EXPERIENCE

Arizona State University Fall 2023 - Present
Graduate Services Assistant *Tempe, AZ*

- **Advisor:** Dr. Ashif Iquebal.
- Working with the concepts of visualizing protein particles using Cryo Electron Microscopy.
- Performing quantitative analysis to detect the effects of electron beam exposure on these macromolecules.

Arizona State University Fall 2023 - Present
Member, PERSUE Lab *Tempe, AZ*


- **Advisor:** Dr. Rakibul Hasan.
- Analyzing app in popular software marketplaces like Slack and Zoom to try and find potential vulnerabilities present in different 3rd party apps.

INDUSTRY EXPERIENCE

Software Developer 04/22 - 06/23
IEIMS *Dhaka, Bangladesh*

- Initially, my responsibilities were only limited to handling legacy codes.
- Eventually, I became the front-end team lead for our module and was overseeing the development and refactoring which included removing prop-drilling from the code-base and integrate react-redux.
- I also migrated our codebase to use modern tools like react-query and react-hook-form to reduce over-usage of states.
- ▶ React.js, Material UI, React-redux, React-hook-form

PUBLICATIONS

Machine Learning Approaches to Metastasis Bladder and Secondary Pulmonary Cancer Classification Using Gene Expression Data. 

Published in International Conference on Computer and Information Technology

- Finding the best classifier to distinguish between cancer types that similar causal link is imperative for better diagnosis.
- In this paper, only bladder and lung cancer were considered. It was found that, LinearSVC classifier proves to be the have the best accuracy in case of gene expression analysis data
- ▶ CuMiDa Dataset, Linear SVC, Logistic Regression, XGBoost

DeepVRM: Deep Learning Based Virtual Resource Management for Energy Efficiency.

Accepted in Springer Journal of Network and System Management

- Under the supervision of Dr. Mahmuda Naznin (Professor, Dept of CSE, BUET) a method was devised for finding an energy efficient network with dynamic virtual network resource management model by forecasting required VNF and vCPU more accurately than other models.
- ▶ VNF, CNN, Bi-directional LSTM

PROJECTS

One-Stop Shopping.

- Platform acts as a middleman showing similar products with varying prices from different sites.
- I was tasked with creating the entire back-end structure for this
- ▶ Scrapy, Selenium, Python, Node.js, MongoDB, Redis, React.js, Express.js, S3 Bucket, Elastic Beanstalk

Yet Another Messenger Clone.

- A complete front and back-end project to emulate the messenger application.
- Incorporated a github action workflow to run tests for every “push”.
- ▶ React.js, Node.js, Cypress, PostgreSQL, Cypress

P2P Lending Platform

- P2P transactional platform to simplify the process of lending.
- ▶ Nodejs , MongoDB, Reactjs, SASS, Expressjs, SSLCommerz(Sandbox)

Android Malware Detection Using Novel System Call Recognition

- System calls from thousands of malwares and benign datasets were collected.
- Generated a classification model that could easily detect the presence of an android malware in the system
- ▶ Maldroid 2017 Dataset, Android Debug Bridge, Monkeyrunner, Random Forest Classifier