

# JOYITA FARUK

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## EDUCATION

**Bachelor of Science** | *Computer Science*

Independent University, Bangladesh

Sep. 2019 – May 2025

Dhaka, Bangladesh

## WORK EXPERIENCE

**Genomics Intern**

Genereveal

Feb 2025 – Current

Montana, US (Remote)

- Working on human DNA sequence data, analyzing genomic datasets to uncover patterns and explore disease associations
- Utilizing high-performance computing via Slurm for efficient data processing
- Conducting sequence alignment, variant calling, and statistical analysis using tools such as BWA, GATK, SAMtools, BCFtools, FastQC, and BEDTools
- Developing and optimizing bash scripts to automate workflows, ensuring scalability and reproducibility

**Editor-in-Chief**

Kitchen Sink, A Literary Journal

Jun 2021 – Jun 2022

Dhaka, Bangladesh (Remote)

- Co-founded and led content management for an online poetry journal during the COVID-19 lockdown
- Built and nurtured a community of over 2,500 followers through curated content
- Organized and hosted a 3-hour live poetry event with 17 performers and an audience of over 100 attendees

## RESEARCH

**Kidney Abnormality Detection Using Segmentation-Guided Classification on CT Images**

Published in: International Conference on Machine Learning and Cybernetics (ICMLC), Miyazaki, Japan.

Pages 414–419. DOI: 10.1109/ICMLC63072.2024.10935113

**Kidney Abnormal Region Localization on 3D CT Images Using ROI-Guided Segmentation**

Journal paper in progress

**Quantum-Hybridized Cloud Integration for Next-Generation Security and Performance**

Journal paper in progress

**Cloud-Based Vaccine Tracking System: A Study on Confidentiality and Performance Trade-offs**

Journal paper in progress

## PROJECTS

**TakaTracker – Expense Tracking Mobile Application**

2024

Developed using Flutter and Firebase with features like currency conversion and categorized expense tracking

**Cloud HemoSphere – Cloud-Based Blood Banking Web App**

2023

Hosted on AWS using EC2 and VPC to ensure data security for blood bank management

**IUBComp – Competition Portal Prototype**

2023

Winning project at IUB Summer Tech Fest; image uploads, voting, and user submissions for university clubs

HONORS AND AWARDS

<b>Mitacs Globalink Research Award</b> Competitive award for conducting research internship in Canada; Grant Amount: \$6000 CAD	January 2025
<b>3-Minute Thesis Competition Winner</b> 1st Place at the CSE Annual Research Day, Independent University, Bangladesh	March 2024
<b>Microprocessor Project Showcase Champion</b> 1st Place at IUB Autumn Tech Fest, recognized for technical innovation and presentation	December 2023
<b>Web Application Project Showcase Winner</b> 1st Place at IUB Summer Tech Fest for developing an innovative competition platform prototype	July 2023
<b>Dean's List</b> Awarded for academic excellence at Independent University, Bangladesh	2023
<b>Dean's Merit List</b> Recognized for being among the top-performing students in the School of Computer Science	2022
<b>Merit Scholarship</b> Awarded based on university entrance exam; received full or partial tuition coverage across multiple semesters	2019–2022

WORKSHOPS

<b>Interdisciplinary Computational Biology Workshop 2025</b> 3-Day Workshop at Brac University	January 2025 Dhaka, Bangladesh
<b>2nd CCDS Workshop on Deep Learning Code Management</b> 2-Day Workshop by CCDS, Independent University, Bangladesh	December 2024 Dhaka, Bangladesh

SKILLS

<b>Programming:</b> Python, Java, C++ <b>Web &amp; Software Development:</b> PHP, Django, Flutter <b>Machine Learning &amp; AI:</b> Keras, TensorFlow, PyTorch <b>Database:</b> MySQL, Firebase <b>Cloud &amp; DevOps:</b> AWS, Linux Shell Scripting <b>Languages:</b> Bengali (Native), English (IELTS Academic 8.5), French (Preparing for A1) <b>Document Creation:</b> $\LaTeX$ , Markdown, Microsoft Office Suite	
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