Mashiat Amin Farin

+1 (469) 388 9856 **|** MashiatAmin.Farin@utdallas.edu

Github: mashiat0808 **| LinkedIn:** Mashiat Amin

EDUCATION

University of Texas at Dallas	**Started Fall 2025**
PhD in Software Engineering	

University of Dhaka - Institute of Information Technology	**GPA:** 3.78
*Bachelor of Science in **Software Engineering***	**Graduated:** Jan 2025

RESEARCH INTERESTS

Software Engineering, Software Engineering for AI, Software Engineering for LLMs, LLMs for Software Engineering

CONFERENCES

M A Farin, S Hassan, J Arroyo, *"Mapping Decentralized Autonomous Organization Governance Across Chains: An Updated, Multi-Platform Dataset",* 2026 IEEE/ACM 23nd International Conference on Mining Software Repositories (MSR)

M A Farin, S Sikder, A Y Raad, M T Ahmed, T Tahlil, *"HealthChain: A Blockchain-Based Framework for Electronic Health Record Management System",* 7th International Workshop on Emerging Trends in Software Engineering for Blockchain – WETSEB 2025

S Sikder, **M A Farin**, M A Islam, T Tahlil, M T Ahmed, *"Unlocking DeFi Literacy: Understanding NFT Market Microstructure in the Decentralized Finance Landscape*", 2nd IEEE International Workshop on Cryptocurrency Exchanges (CryptoEx 2024), 2024

RESEARCH EXPERIENCE

IIT, University of Dhaka | *Research Assistant with Ms. Noshin Tahsin (Lecturer, Kishoreganj University)*   ***March 2025 – Present***
- Conducted a comprehensive literature review on AI and LLM integration in EdTech, evaluating trends, challenges, biases, and performance metrics
- Analyzed linguistic strategies in political movements, examining coded language and symbolic communication.
- Examined technology's impact on protest coordination and resistance against state surveillance.

Universidad Complutense de Madrid | *Research Assistant*   ***April - July 2025***
- Collaborated with Dr. Samer Hassan to study Decentralized Autonomous Organizations (DAOs) and their governance structures.
- Collected, cleaned, and analyzed multi-platform datasets to assess the evolving state of DAOs.
- Investigated egalitarianism indicators in DAO ecosystems, linking findings to equity and representation in digital governance.

Data & Design Lab, CSE, University of Dhaka | *Research intern*   ***Nov 2023 - Feb 2025***
- Extracted and analyzed electrical load and feeder datasets from Dhaka city substations to identify quality parameters & trends.
- Built & implemented machine learning models for seasonal demand forecasting and performance comparison of substations.
- Researched and evaluated electrical load forecasting methods, preparing comprehensive reports and visualizations of substation performance.
- Conducted seasonal analysis & visualized data to communicate findings and support decision-making processes effectively.

IIT, University of Dhaka | *Research Associate*   ***January 2023***
Hosted workshop on A Machine Learning Driven Threat Intelligent Mechanism for Predicting Cyber Attacks
- Executed machine learning experiments with various datasets, fine-tuning parameters to improve results.
- Documented results using graphical representations in OriginPro.

IIT, University of Dhaka | *Undergraduate Student Researcher – Computer vision under Dr. Mohammad Shoyaib*   ***Aug – Dec 2022***
Analyzed research papers gathering insights into activity recognition and computer vision models in industrial settings

IIT, University of Dhaka | *Undergraduate Student Researcher – NLP under Dr. Ahmedul Kabir*   ***May 2022 – May 2023***
- Explored word embedding methods to enhance Bangla word embedding models.
- Investigated Bangla hate speech corpus and related models through literature reviews.
- Conducted an in-depth examination of stemming in various languages, focusing on Bangla stemming.

DEVELOPMENT & PROBLEM SOLVING SKILL SET

Languages:	Java, Python, C++, R, SQL, Solidity, HTML, JS, CSS, PHP
Libraries and Frameworks:	Flask, Hyperledger Firefly, Hyperledger Besu, Rshiny, Rmarkdown, Pygame, Pandas, NumPy, Scikit-learn, hardhat, ReactJS, NodeJS, NestJS, AngularJS, Express
Development Tools:	Git, Github, Linux/UNIX, MySQL, MongoDB, Postman, Firebase, Tableau, Figma, Jupyter Notebook, R studio, Google Colab, originPro, Jira, Docker, The Graph, GraphQL, PostgreSQL

PROFESSIONAL EXPERIENCE

Brain Station 23 | *Associate Software Engineer*   *Jan - Nov 2024*
- o Analyzed Solidity optimization techniques for gas fee reduction and smart contract testing using hardhat and chai
- o Researched auditing techniques and frameworks in solidity for vulnerability detection
- o Researched GraphQL and indexing subgraphs from blockchain using the graph.

Grameen Communications | *Blockchain R&D intern*   *June-July 2023*
- o Researched the existing microcredit system to assess blockchain's potential for enhancing security.
- o Developed a blockchain prototype for the current system, formulated & implemented smart contracts to enhance user service.

Softanbees Technologies Limited | *Data Science Intern*   *Mar 2021 – Aug 2021*
- o Analyzed and extracted insights from public data to create informative blogs.
- o Designed Data Flow Diagrams, and prototyped, and documented research projects and technical content.

PROJECTS

🔗 **FinCube |** *Solidity, Hardhat, The Graph, NestJS, React*   **March 2024**
- o Conducted research on existing mobile financial services to architect a Decentralized Autonomous Organization (DAO) for seamless currency exchange and interoperability across borders.
- o Formulated, implemented and tested smart contracts to automate currency swaps, business registrations, and voting mechanisms within the DAO.
- o Used Graph Studio to index blockchains and created transaction loggers to confirm transactions in the web2 system.

🔗 **DriveChain |** *Solidity, Hyperledger firefly, React*   **June 2023**
- o Conducted research on the existing system to architect a Decentralized system for the Road Transport Authority of Bangladesh.
- o Formulated and implemented smart contracts for automating license, registration, and tax applications.
- o Implemented document authentication to complement e-licenses.
- o Utilized the concept of NFTs to tokenize vehicles within the system.

Decentralized Micro Finance system | *Solidity, Hyperledger firefly, React*   **June 2023**
- o Conducted extensive research on how blockchain can enhance current microfinance systems and practices in Bangladesh
- o Developed a UI using React & implemented smart contracts using IBM's Hyperledger Firefly

🔗 **HealthChain |** *Solidity, Hyperledger firefly, React*   **Mar 2022**
- o Researched over 100 papers on the state of health services in underdeveloped countries to establish a decentralized network.
- o Led a team of 4 designing a scalable blockchain-based distributed health ledger for 200,000 patients.

Hate speech analysis from social media comments | *Pandas, NLTK, NumPy, Google Colaboratory, Python*   **July 2022**
- o Trained an NLP model with NLTK to classify hate speech using a dataset of 50K Bengali comments.
- o Built an ML pipeline achieving 89% accuracy incorporating Logistic Regression, SVM, and TF-IDF Vectorization.

Fire Prevention system | *Arduino Uno, Firebase, ReactJS*   **2021**
- o Engineered an IoT application that triggers an alarm upon detecting even trace amounts of gas in the air.
- o Designed the application to shut off the gas source automatically when gas concentration reaches a critical level.
- o Empowered users to actively monitor gas levels within their homes.

🔗 **MiniChessAI |** *python, pygame*   **2023**
- o Innovated a miniature chess variation, enabling gameplay against both human opponents and AI.
- o Implemented AI with heuristic methods, move ordering, minimax, and alpha-beta pruning for improved performance

🔗 **WumpusAI |** *python, pygame*   **2023**
- o Created a 10x10 wumpus cave with random & user-generated maps, including arrows, gold, pits, & wumpus creatures.
- o Designed an AI system using heuristic, propositional, and first-order logic for advanced in-game decision-making.

ACHIEVEMENTS AND AWARDS

2024 Finalist at International Blockchain Olympiad 2024
2024 Honorable mention at National Blockchain Olympiad 2024
2022 Bronze medal at SDG:3 Category in International Blockchain Olympiad
2022 Regional Champion at Bdapps Hackathon by Robi
2022 HeathTech Category award (National Blockchain Olympiad 2022), Winner for creating a blockchain-based EHR platform
2022 Champion (Odommo'50 Super Techfest), Winner for creating a fire prevention system
2022 Champion(Analytical Quiz at Independence Cup, IIT, University of Dhaka)
2022 Finalist (Mujib 100 Idea contest at IC4IR), for creating the mental health platform "Listener's Lounge
2021 Runner up (MIST Inter-university ICT Innovation Fest 2021), under the category Education under COVID-19

Organizations

IEEE Computer Science Student Branch University of Dhaka | *General Secretary*   *Jan 2023 – Jan 2024*
IIT Software Engineering Community | *Vice President*   *Jan 2023 – Jan 2024*
IIT Competitive Programming Community | *General member*   *Jan 2020 – June 2024*