

CAREER SUMMARY

As a Full Stack Software Engineer with 5+ years of professional experience, I've worked with diverse tech stacks within collaborative environments. I enjoy diving into the nitty-gritty of backend, frontend, and system design. Currently, as a Ph.D. candidate, my focus is on blockchain smart contract security.

EDUCATION

- **Wayne State University** Detroit, MI, USA
PhD in Computer Science Aug. 2021 – Present
- **Jahangirnagar University** Dhaka, Bangladesh
Master of Science in Information Technology GPA: 3.65 / 4.00 2016 – 2017
- **Jahangirnagar University** Dhaka, Bangladesh
Bachelor of Science in Information Technology GPA: 3.62 / 4.00 2012 – 2015

EXPERIENCE

- **Wayne State University** Detroit, MI, USA
Graduate Teaching Assistant Aug 2021 - Present
 - **Problem Solving and Programming - C++:** Instructor of Theory and Lab
 - **Java Programming:** Instructor of Theory and Lab
 - **Bioinformatics - R:** Instructor of Lab
- **Cefalo** Dhaka, Bangladesh
Software Engineer Sep 2019 - Jul 2021
 - **Value Insight, Energy Forecast - Python:** Collaborated on the development of an internal scraping framework designed to efficiently gather data from diverse sources. This involved implementing various data processing methods to enhance the collected information. The refined data was systematically stored in a database, contributing to the training of a predictive model. This model, in turn, was instrumental in forecasting prices across hourly to yearly intervals within the European energy market.
 - **Cefalo Recruitment App - Laravel, Vue.js:** Implemented a robust recruitment project featuring job listing, job application, and employee management modules. This internally deployed tool was served as a pivotal system for the HR department, effectively managing a workforce of over 150 employees.
 - **Owl + Lark, Ecommerce - WordPress:** Developed a luxury mattress retail e-commerce site, integrating a blog for comprehensive content delivery ensuring security measures and continuous deployments.
- **Rapid Web Services** Dhaka, Bangladesh
Full Stack Software Engineer May 2018 - Sep 2019
 - **SeeBiz Inventory - Laravel, MySQL, ReactJS:** Collaborated on the development of an inventory management system tailored exclusively for wholesale businesses that streamlined invoicing, real-time stock tracking with leakage detection, multi-warehouse support, and low stock notifications. Nearly 100 wholesale companies actively utilize the product on a daily basis.
 - **SeeBiz, Social Business Network - NodeJS, MongoDB:** Developed the backend of an online wholesale marketplace and social business networking platform that allows vendors, customers, and peers to connect with each other, display their products and exchange goods.
- **Codalo** Dhaka, Bangladesh
Software Engineer Nov 2016 - Apr 2018
 - **Excelsior Express, Courier Service - Laravel, MySQL, Android:** Developed a courier service platform encompassing parcel tracking and warehouse maintenance functionalities. Additionally, built a mobile app to scan and update package tracking information seamlessly from the parcel warehouse to the user's doorstep.

PROGRAMMING SKILLS

- **Backend:** Python, JavaScript (Node.js), PHP (Laravel), Java
- **Web3:** Blockchain, Solidity, Foundry, Smart Contract Development
- **Frontend:** React.js, Vue.js
- **DevOps:** AWS, Docker, CI/CD
- **AI/ML:** Machine Learning, Deep Learning, NLP, PyTorch

PROJECTS

- **Lottery - Solidity, Foundry:** A decentralized lottery smart contract with automated testing and deployment
- **Online Notepad - Laravel:** A free tool for storing and sharing notes with password protection option
- **DevTut - Vue.js, Python:** Example based programming tutorials for solid developers
- **AST Generator - NodeJS:** Solidity to AST code generation with block highlighting
- **Quran Translation - JavaScript:** Arabic and Bangla translation of whole Quran with audio
- **Coding - React:** My coding solutions for different coding platforms
- **Todo Task Tracker - React, NodeJS:** Daily time tracking for todos and repeated tasks
- **Spelling Quiz - React:** Learn and practice common spelling mistakes
- **Temporary Chat - NodeJS:** Realtime chat app supports chat rooms, no database used
- **Pomodoro Time - Python:** Distraction free desktop pomodoro timer
- **Link Sharer - Laravel:** Category wise public link sharing site
- **Handwritten Digit Generator - PyTorch:** GAN model that learns from real handwritten digits to generate its own
- **COVID Detection from XRay - Keras:** CNN model to identify X-RAY images that are affected with COVID-19

CERTIFICATIONS

- **Scientific Computing with Python:** freeCodeCamp
- **JavaScript Algorithms and Data Structures:** freeCodeCamp
- **Responsive Web Design:** freeCodeCamp
- **M001 MongoDB Basics:** MongoDB
- **M121 The MongoDB Aggregation Framework:** MongoDB
- **Rest API:** HackerRank

PAPERS

- [A Generic Efficient Scientific Workflow Engine for the Optimizations of Run-Time Execution](#)
- [Sentiment analysis on twitter tweets about COVID-19 vaccines using NLP and supervised KNN classification algorithm](#)
- [Supervised machine learning based liver disease prediction approach with LASSO feature selection](#)
- [An Automated Smart Embedded System on Fire Detection and Prevention for Ensuring Safety](#)
- [An Adaptive Routing Algorithm for on-chip 2D Mesh Network with an Efficient Buffer Allocation Scheme](#)

ACHIEVEMENTS

- Got National Science and Technology (NST) fellowship in Bangladesh
- Achieved Jahangirnagar University Complementary Scholarship in Honors Program
- Volunteered at IEEE conference