Junaid Mansur Ifti

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EDUCATION

University Of Dhaka, *Bangladesh* 2018 - 2022
Bachelor of Science in Software Engineering
CGPA: 3.58/4.00 (**3.98/4.00** in Last 2 Years)
Notable Courses: Machine Learning, Artificial Intelligence, Software Requirement Engineering, Software Metrics, Software Security, Software Design and Analysis, Software Testing, Software Maintenance, Pattern Recognition and Image Processing, Distributed Systems

Professional EXPERIENCE

Junior Software Engineer, *Ding, Ireland (Hybrid-Remote)* May 2023 – Present

- Relevant Skills: C# (ASP.NET), Jenkins, MSSQL, MongoDB
- Develop and maintain the backend of internal web applications, conduct API technical specifications, integrate 3rd Party recharge and payment APIs to the internal system, and actively participate in code reviews.
- Collaborate in a multicultural environment, lead technical meetings and preside over knowledge transfer sessions for technical and non-technical stakeholders.
- Currently started mentoring new joiner SWEs during the induction phase.

SWE Intern, *Samsung Research & Development Institute, Bangladesh (Onsite)* January 2022 – June 2022

- Relevant Skills: Android Development, Kotlin, Java, JUnit
- Learnt a new domain - Android; language - Kotlin and contributed to the core codebase (100K+ LOC) by improving and increasing unit test case coverage by 40%.

SKILLS

- **Programming:** Python, C#, C++, Java, JavaScript, PHP
- **Frameworks & Technologies:** .NET Core(C#), Flask(Python), pandas, scikit-learn, matplotlib, Bootstrap, CSS3, MongoDB, MSSQL, NUnit, Angular
- **Tools & Platforms:** Jenkins, Git, Docker, Docker-Compose, Jupyter Notebook, XAMPP, Nginx
- **Problem Solving Profile**: **(Leetcode) bsse1027 | Solved Problems: 111 | Max Contest Rating: 1463**

RESEARCH EXPERIENCE

Research Associate, *Intelligent Systems and HCI Research Group,* *Bangladesh* June 2024 – Present

- Working on a paper titled "Automated Community Smell Detection Using In-Context Learning Capabilities of GPT." Contributing on methodology and app development part.

Mentee, *Distributed Systems & Software Engineering Research Group,* *Bangladesh* June 2022 – December 2022

- Supervised by Dr. Kazi Muheymin (DSSE Lead) to implement a web application tool based on an IEEE conference paper to detect anomalous web traffic from "Google Analytics Data" as the final undergraduate research project.

STANDARDIZED TEST SCORES

IELTS Academic: Listening 8.5 | Speaking 8 | Writing 7.5 | Reading 7.5 | **Overall 8**

PROJECTS

TOOL IMPLEMENTATION & RESEARCH PROJECTS

- Automated Community Smell Detection Using In-Context Learning Capabilities of GPT 2024 (Ongoing)
Researching to develop a tool to detect community smells from conflict scenarios of large-scale software companies using GPT's in-context learning capabilities. Contributing to developing GPT-based classification methodology, evaluation techniques, and tool development.
- GQM Research: Impact of Physical Health and Daily Habits on Developer Productivity | *Project Link* | *(Senior Year)* 2021
Languages/Frameworks: Python, Jupyter Notebook
Investigated the correlation of physical health on developer productivity using the Goal Question Metric (GQM) approach,

based on collected data through manually created questionnaires, from software engineers in various companies.

- Air Quality Index predictor based on weather data(LR) | *Project Link* | *(Senior Year)*
Languages/Frameworks: Python, pandas, scikit-learn 2022
Used linear regression to explore the correlation between weather patterns and AQI in Chittagong, Bangladesh. Integrated and pre-processed a custom dataset from two publicly available scraped sources.

- GAnomaly: Anomaly Detection Tool | *Project Link*| *(Senior Year)*
Languages/Frameworks: Python, Flask, Typescript 2022
Developed a web traffic anomaly detection tool for Google Analytics data, based on hybrid rule-based and machine learning, implementing the methodologies of an IEEE conference paper.

- Control Flow Graph and Software Metrics | *Project Link*| *(Senior Year)*
Languages/Frameworks: Python 2022
Developed a tool to generate control flow graphs and compute software metrics, such as Halstead complexity and Lines of Code (LOC), for software quality assessment.

- A Tool for Commit Classification | *Project Link*| *(Senior Year)*
Languages/Frameworks: Python, Jupyter Notebook 2022
Implemented a paper into a tool, based on source code changes and commit messages, categorizing commits into Corrective, Perfective, and Adaptive maintenance activities, as part of a group project.

- Stock Price Prediction (LR) | *Project Link*| *(Senior Year)*
Languages/Frameworks: Python, scikit-learn 2022
Developed a linear regression model to predict stock market trends using historical data, implementing a research paper, in the context of Bangladesh.

AI/MACHINE LEARNING PROJECTS

- Divorce Prediction (KNN From Scratch) | *Project Link*| *(Junior Year)*
Languages/Frameworks: Java 2021
Built a K-Nearest Neighbors (KNN) algorithm, coded from scratch, to predict the likelihood of divorce based on a psychological questionnaire dataset.

- Skin Detection (Naive Bayes) | *Project Link*| *(Junior Year)*
Languages/Frameworks: Java 2020
Developed a Naive Bayes classifier from scratch to detect skin pixels from images using Bayesian statistics for lightweight image processing.

- Wumpus World: AI Agent | *Project Link*| *(Junior Year)*
Languages/Frameworks: Java, HTML 2021
Designed an AI agent using logical reasoning to solve the Wumpus World problem, helping the agent navigate the environment using inference-based rules.

- Connect 4: AI Player Agent| *(Junior Year)* | *Project Link*
Languages/Frameworks: Python 2021
Developed an AI player for Connect 4 using the Minimax algorithm with Alpha-Beta Pruning, enabling heuristic evaluation and efficient decision-making in the game, as a group project.

SOFTWARE DEVELOPMENT PROJECTS

- Ride Sharing App (Monolith to Microservice) | *Project Link*| *(Junior Year)*
Languages/Frameworks: Node.js, Docker, Nginx 2021
Developed a rudimentary ride-sharing app and incrementally converted it from a monolithic architecture to microservices. The app ran on orchestrated containers deployed in distributed computers.

- Postal Automation System | *Project Link*| *(Junior Year)*
Languages/Frameworks: PHP, VanillaJS, Bootstrap, MySQL 2021
An age-old letter delivery system was converted to a digital web app-based system for the University of Dhaka, now live as an officially working web application under the university domain.

- Doctors Management System (MVC) | *Project Link*| *(Junior Year)*
Languages/Frameworks: C#, ASP.NET MVC, AngularJS 2021
Built an MVC-based web application for doctors to manage appointments and patient records and database-managed prescription-making as pdf.

- Pseudo 3D Racing Car | *Project Link*| *(Freshmen Year)*
Languages/Frameworks: C++, SFML 2018
Developed a pseudo-3D racing car game using C++ and OpenGL, simulating 3D effects in a 2D game engine.

- Software Requirement Specification Project | *Project Link*| *(Sophomore Year)*
Produced a Software Requirement Specification (SRS) document from scratch by having actual client discussions for a proposed software system of a university cafeteria, adhering to industry-standard SRS documentation. 2019

ACCOMPLISHMENTS

National Cyber Drill by BGD e-Gov CIRT | Capture the Flag (CTF) Competition 2020

- Competed among 234 teams from banks, organizations, and universities in a CTF competition of national cyber drill.
- Secured a spot in the Top 20.

Bangladesh Physics Olympiad by BDPhO | Sylhet Divisional Medalist 2012

- Achieved Divisional Medalist recognition and proceeded to the national round.

Government Scholarship (Science), Higher Secondary Certificate Exam 2017
Government Scholarship (Science), Secondary Certificate Exam 2015

INVOLVEMENT

Organizing Secretary & Cultural Secretary, IIT Software Engineers' Community 2019-2022

- Organized various technical workshops, seminars, and cultural programs.
- Led teams and served on the executive committee for "ITVerse 1.0," the first inter-university IT Fest and Competition by IIT DU.
- Actively participated and led teams in "TechCrunch 2.0," an ADB-funded "IT Awareness Workshop For Female College Students" to promote women's participation in IT.
- Led cultural teams in intra-department musical and cultural programs.

Volunteer, Fight For Life Initiative March-April 2020

- Collaborated with students and alumni of IIT, DU to create a website with an integrated payment system to raise emergency funds for the poverty-stricken people of Bangladesh during the initial Covid-19 lockdown phase.

REFERENCES

Dr. Kazi Muheymin-Us-Sakib, Professor
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