

FAHIM AHMED

GRADUATE SOFTWARE ENGINEER

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ACADEMIC CREDENTIALS

Bachelor of Science in Software Engineering
Institute of Information Technology, University of Dhaka
January 2017 – December 2022

GPA: 3.28/4.00 (Final Year 3.815/4)

STANDARDIZED TEST SCORES

International English Language Testing System (IELTS) – 12th January, 2024

OVERALL	LISTENING	READING	WRITING	SPEAKING
7.5	7.5	8.5	6.5	6.5

Graduate Record Examination (GRE) – 9th May, 2024

OVERALL	QUANT	VERBAL
308	161	147

RESEARCH INTERESTS

AI4SE, Human-Computer Interaction, Generative AI, Accessibility, Smell Detection, Learning Analytics

RESEARCH EXPERIENCE

Leveraging Machine Learning for Thunderstorm Prediction in Northeastern (NE) Region of Bangladesh: Enhancing Community Preparedness with Advanced Location Detection Technology (Accepted)

American Geophysical Union (AGU) conference annual meeting, 2024

Md. Hasanur Rahman, Bangladesh University of Engineering and Technology, Institute of Water and Flood Management (IWFM), Dhaka, Bangladesh, Sonia Binte Murshed, Bangladesh University of Engineering and Technology, Dhaka, Bangladesh and Fahim Ahmed, University of Dhaka, Institute of Information Technology (IIT), Dhaka, Bangladesh.
<https://agu.confex.com/agu/agu24/prelim.cgi/Paper/1681194>

Harnessing the Power of Generative Artificial Intelligence to Detect Community Smells (Unpublished)

ISHCI X DSSE lab, IIT, University of Dhaka <https://sites.google.com/view/ishci>

(Data analysis and tool development ongoing)

Analysis of the accessibility of the user interface for educational technology platforms, focusing on ADHD and minimizing context-switching (Unpublished) <https://sites.google.com/view/ishci>

ISHCI X DSSE lab, IIT, University of Dhaka

TEACHING ASSISTANTSHIP EXPERIENCE

THADDEUS STEVENS COLLEGE OF TECHNOLOGY

750 King ST Lancaster, Pennsylvania 17602, United States

Teaching Assistant, Contract (Remote)

July, 2024 - Present

Courses: CIS 111 Introduction to Computer Applications, CSET 222 Database Management System

Responsibilities: Designing comprehensive presentation slides, enhancing visual engagement, and aiding in the simplification of complex concepts. Detailed assignments focusing on critical thinking and application of theory materials of the course

PROFESSIONAL EXPERIENCE

SCALE AI

San Francisco, California, United States

Software Engineer for AI Training Data, Contract (Remote)

June, 2024 - Present

- Flamingo Coding Multiturn Deviations:** Training AI model by creating prompts and evaluating AI responses, emphasizing four key prompt categories: debugging, editing and documentation, precise instruction following, and others.
- Vertigo Coding** - Creating prompts to test a model's ability to improve code quality, generate code documentation, and explain specific areas of code.

SAMSUNG R&D INSTITUTE BANGLADESH**Software Engineer, Intern****111 Bir Uttam CR Dutta Road, Dhaka 1205, Bangladesh****February 2023 - August 2023, January 2022 - July 2022**

- Automation of SDLC process to ensure quick release of projects, met 95% company KPI
- Development of source code analysis tools for Java projects, addition of 10 new features in the existing system
- 100% Automation on Code quality metrics analysis for projects using python, Jenkins and Lizard (open source)
- Using a company defined scoring system to calculate which projects need maintenance
- Development of python program to analyze project source code and calculate code quality metrics only on recently changed source code

PROJECTS

AN AUTOMATED CODE SMELL DETECTION PLUGIN USING CODE METRICS ANALYSIS

- An Eclipse IDE plugin to detect code smells using the calculation of code metrics
- Uses a total 24 code metrics to detect 10 code smells
- Helps developers identifying the exact line number of the specific smell occurrence

SAFETY PIN

- An android application that identifies crime locations using latitude, longitude and based on 100+ user input
- An alert system when a user enters a geofence of a crime zone. There are a total 3 types of crime zones
- Quick access to emergency contact and access of nearest police station phone number on a single click

HANDWRITTEN DIGIT RECOGNITION SOFTWARE

- A digit recognition software that detects handwritten digits using KNN and Naïve Bayes Algorithm
- MNIST Dataset, without using any external library and with an average accuracy of 92.5%

TEMPERATURE PREDICTION OF BANGLADESH USING LINEAR REGRESSION

- Secondary data collected from Bangladesh Govt. websites
- Check Linear Relationship using Normality of Errors, Heteroscedasticity, Autocorrelation, Multicollinearity
- Selected Features: CO2, Solar Radiation, Rainfall

GIT COMMIT CLASSIFICATION (RESEARCH PAPER IMPLEMENTATION)

- Classifying Git commits based on maintenance types (Corrective, Perfective, Adaptive)
- Feature used – Keywords Model, (Source Code) Changes Based Model, Combined Model ()
- Classification Algorithms used – Random Forrest, GBM, J48

IMAGE CLASSIFICATION USING FEATURE EXTRACTION AND CLASSIFICATION

- Feature Extraction technique used–Hough transform, Local Binary Pattern (LBP), Histogram of Oriented Gradients (HOG)
- Classification Algorithm used – **Support Vector Machine (SVM), Random Forrest**

CERTIFICATION

MACHINE LEARNING SPECIALIZATION (STANFORD UNIVERSITY & DEEPLARNING.AI)**[SUPERVISED MACHINE LEARNING (REGRESSION AND CLASSIFICATION), NEURAL NETWORK, UNSUPERVISED LEARNING, RECOMMENDER]****COURSERA****2024****JUNIOR CERTIFICATE IN JAPANESE (INSTITUTION OF MODERN LANGUAGE, UNIVERSITY OF DHAKA)****[SECOND DIVISION, ONE YEAR COURSE]****DHAKA, BANGLADESH****APRIL, 2019****BASIC FIRST AID TRAINING****[RED CRESCENT YOUTH CO-CURRICULUM ACTIVITY]****BANGLADESH RED CRESCENT SOCIETY, DHAKA CITY****17 JAN, 2020****SKILLS AND ACHIEVEMENTS**

- **Guinness World Record:** Most users to complete 10 km in 24 hours (2021)
- **Chess:** Champion, Dhaka City College (2016)
- **Hult Prize:** 2nd Runner Up, University of Dhaka (2020)
- **Hackathon:** Finalist, Tech for Peace (2017)
- **Dhaka Half Marathon (21.1KM):** Finisher (2020)
- **UCR Half Marathon (21.1KM):** Finisher (2024)