# Asadullah Hill Galib

#### **Personal Statement**

I'm pursuing my PhD in Computer Science at Michigan State University from Fall 2020. Currently, I'm looking for graduate research assistantship (GRA) opportunities. My research interests are machine learning and data mining in real-life applications. I have hands-on research experiences in machine learning and data mining in cybersecurity, health-science, text analysis, and software engineering.

#### **Education**

Master of Science in Software Engineering

2020

University of Dhaka, Dhaka, Bangladesh

Thesis: Significant Features Analysis For Android Malware Detection Using Machine Learning Techniques

**Bachelor of Science** in Software Engineering *University of Dhaka*, Dhaka, Bangladesh

2018

## Standardized Test

 $\textbf{GRE: 320}/340 \; \big( \text{Quantitative - } \; 165/170, \; \text{Verbal - } \; 155/170, \; \text{Analytical Writing - } \; 3.0/6.0 \big)$ 

**TOEFL: 102**/120 (Reading - 29/30, Listening - 23/30, Speaking - 24/30, Writing - 26/30)

### **Technical Skills**

**Programming:** Python, Java, PHP, JavaScript, C, C++, R, Octave, Assembly

 $\textbf{Libraries:} \ \, \mathsf{Scikit\text{-}learn,} \ \, \mathsf{Pandas,} \ \, \mathsf{React,} \ \, \mathsf{Redux\text{-}Saga,} \ \, \mathsf{jQuery}$ 

Database Management Systems: MySQL, Oracle, Firestore

Frameworks: React Native, Laravel, Selenium, MVC

Technologies and Methodologies: Linux, Git, Agile, Foritfy, SRS, XAMPP, Postman, Jira, Trello, Desktime

#### **Publications**

- 1. **Galib, A. H.**, Hossain, B. M. (2020, July). Significant API Calls in Android Malware Detection (Using Feature Selection Techniques and Correlation Based Feature Elimination). In Proceedings of the 32nd InternationalConference on Software Engineering Knowledge Engineering (pp. 566-571).
- 2. **Galib, A. H.**, Hossain, B. M. (2020). A Review on Hybrid Analysis using Machine Learning for Android Malware Detection. Dhaka University Journal of Applied Science Engineering (DUJASE), Volume 5(1 & 2). Manuscript in press.
- 3. **Galib, A. H.**, Hossain, B. M. (2019, December). A Systematic Review on Hybrid Analysis using Machine Learning for Android Malware Detection. International Conference on Innovation in Engineering and Technology (ICIET) 2019.
- 4. Yasir, R. M., Asad, M., **Galib, A. H.**, Ganguly, K. K., Siddik, M. S. (2019, May). GodExpo: an automated god structure detection tool for Golang. In 2019 IEEE/ACM 3rd International Workshop on Refactoring (IWoR) (pp. 47-50). IEEE.

## Research Projects

1. Pre-birth Factors in the Early Assessment of Child Mortality using Machine Learning Techniques:. Incorporating pre-birth factors, such as birth history, maternal history, reproduction history, socio-economic condition, etc. for the early classification of child mortality.

- 2. Predicting GitHub Issues Lifetime using Machine Learning and Topic Modeling (LDA): Analyzing the characteristics and applicability of topic modeling (LDA) in GitHub Issues and predicting lifetime based on topic modeling (LDA) with machine learning techniques.
- 3. **Optimizing Search Space in Code Smells Detection using a Novel Metric:** Significantly reducing search space using a novel metric called NCPC, while maintaining the performance of code smells detection.
- 4. **ProtectMe: An Approach to Provide Audio Privacy in Real-time:** Audio communication with audio privacy in real-time using a modification algorithm.

### **Academic & Professional Projects**

- 1. **LifeBlood:** A GPS based blood donor finder android app which sorts out nearer blood donors across the map. In addition, a user rating system and profiling of donors are being implemented.
- 2. **AutoPilot-Web:** A web-based digital transformation of BTS (Base transceiver station) management. Its purpose is to optimize and automate the existing network management system.
- 3. **AutoPilot-Mobile:** A mobile application (iOS and Android) for the digital transformation of BTS (Base transceiver station) management.
- 4. **LogBook:** A web-based application for personal task management including task manager, notes, attachments, reminders and synchronization.
- 5. Offline-Search-Engine: An Offline (file-folder) search engine for Linux and Windows operating systems.

### **Industry Experience**

Software Developer & Executive Assistant, Brain Station 23

January 2018 - June 2018

- Developed and maintained web application and mobile application, using Laravel Framework, PHP, MySQL, React-Native, Redux-Saga, Android Studio, Postman and proper version-controlling (Git, SourceTree).
- Carried out comparative analysis (performance, ease of development, feature analysis) of two e-commerce frameworks: nopCommerce and Magento.
- Reviewed an existing system for updates and enhancement.

## **Teaching Experiences**

**Graduate Teaching Assistant**, *Michigan State University (CSE)* 

August 2020 - Present

• Coordinator (Section 1) and help room teaching assistant of CSE 102: Algorithmic Thinking and Programming

Short-course Instructor, Institute of Information Technology, University of Dhaka August 2019 - March 2020

• Teaching smart office programs, designing exam questions, assessing oral presentations.

## **Leadership Activities**

Organizer, First Software Industry-Academia Collaboration Session in 2017 (with 10 leading companies)

Vice President & Treasurer, IIT Software Engineers' Community, University of Dhaka

Editor & Author, Shoshikkha - A web-based knowledge platform

**Organizer**, Seminar on the fourth industrial revolution, Workshops on secured internet protocol and IT awareness for females, Boot Camp on technology for peace

Founding Member, Innovation, Creativity & Entrepreneurship -ICE Center, University of Dhaka

Co-founder, ASMSIF (Association for Spreading Mathematical and Scientific Intelligence with Fun)

Organizer, Local Math Olympiad

## **Scholarships and Honors**

• Board Merit Scholarship and full tuition waiver in the undergraduate study at the University of Dhaka, Bangladesh for excellence in H.S.C Examination, 2014, Dhaka Board.

### References

Available upon request