Protik Bose Pranto

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EDUCATION

Arizona State University *August, 2022 - Present*
Ph.D. in *Computer Science*
Advisor: Dr. Rakibul Hasan

Bangladesh University of Engineering and Technology *March, 2016 - February, 2021*
Bachelors in *Computer Science and Engineering*

PUBLICATION

- **Protik Bose Pranto**, Waqar Hassan Khan, Sahar Abdelnabi, Rebecca Weil, Mario Fritz and Rakibul Hasan. *Poster:* "Understanding the Effect of Private Data in Disinformation Propagation". In: **Accepted** at *Nineteenth Symposium on Usable Privacy and Security*, **SOUPS** (**2023**).

- Waqar Hassan Khan, **Protik Bose Pranto**, Tianyi Yang, Rakibul Hasan. *Poster:* "Exploring Privacy and Security Concerns of EdTech Users: A Qualitative Analysis of User Written Reviews". In: **Accepted** at *Nineteenth Symposium on Usable Privacy and Security*, **SOUPS** (**2023**).

- **Protik Bose Pranto**, Waqar Hassan Khan, Sahar Abdelnabi, Rebecca Weil, Mario Fritz and Rakibul Hasan. "From Bad to Worse: Using Private Data to Propagate Disinformation on Online Platforms with a Greater Efficiency". In: **Accepted** at *Design x Policy*, **CHI Workshop** (**2023**).

- **Protik Bose Pranto**, Bishal Basak Papan, and Md. Saidur Rahman. "k-Safe Labelings of Connected Graphs". In: **Accepted** at *IEEE International Conference on Telecommunications and Photonics*, **ICTP** (**2021**).

- Bishal Basak Papan, **Protik Bose Pranto**, and Md. Saidur Rahman. "On 2-Interval Pairwise Compatibility Properties of Two Classes of Grid Graphs". In: **Accepted** at *The Computer Journal*, **COMPJ** (**2021**).

OTHER RESEARCH WORK

1. **Protik Bose Pranto**, Syed Zamiul Haque Navid, Protik Dey, Gias Uddin, and Anindya Iqbal. "Are You Misinformed? A Study of Covid-Related Fake News in Bengali on Facebook". (**2022**)

RESEARCH EXPERIENCE

PERSUE: PrivatE, Reliable and SecUrE Computing Lab *2022 –*
Graduate Student Assistant with Dr. Rakibul Hasan

Graph Drawing and Information Visualization Laboratory, BUET *2019 – 2021*
Undergraduate Researcher with Prof. Md. Saidur Rahman

RESEARCH AREA

- Usable security and privacy
- Data privacy in EdTech
- Machine Learning
- Human-Computer Interaction

INVITED TALK

- Presented my research work on misinformation in a *Lightning Talk* at ASU CyberSecurity Symposium 2023.

ACHIEVEMENTS

- Awarded **USENIX Security Student Grant** *2023*
- Got accepted into the **post-CHI summer school** on Usable Privacy and Security *2023*
- Been awarded the **SCAI Doctoral Fellowship** *2022*
- Completed **Google Foobar Challenge** *2020*
- Ranked 3rd place in **South Asia Center for Media in Development** *2020*
- Winner of the **HackTheCode contest** in **Google Cloud DevFest** *2019*
- Our idea got selected among the **top 30 ideas** in **Eduprenuership Idea Quest** *2017*
- Ranked 3rd place in the hackathon of **IUT ICT Fest** *2017*
- Our team was among the **top 50 teams** in **ICPC Regional Contest** *2017,2016*

WORK EXPERIENCE

PERSUE: PrivatE, Reliable and SecUrE Computing Lab *August, 2022 -*
Graduate Student Assistant

- My current research projects are misinformation and web measurement. I am also working on the security analysis of educational apps.

Arizona State University *August, 2022 -*
Teaching Assistant

- So far, I have been assisting students in three courses. CSE 100 (Principle of Programming with C++), CSE 477 (Intro Computer-Aided Geometric Design), CSE 467 (Data and Information Security) and CSE 485 (ASU Capstone Project) are the courses. My primary responsibility in this role is to assist and mentor students with their assignments and projects.

Start Network *March, 2022 - July, 2022*
Consultant

- On their Forecast-based, Warning, Analysis, and Response Network (FOREWARN) project, I conduct a Data Science program. I also work with the team and provide technical assistance in the pursuit of a peer-reviewed publication.

Chaldal Engineering *March, 2021 - February, 2022*
Software Engineer

- **Customer Experience Team**
  I have worked in this team managing their website, mobile app, order APIs, search catalog and other user-facing services.

- **EggShell Team**
  EggShell is a tech stack for front end apps. It combines a number of technologies like React, Fable, ReactXP, RenderDSL, and StyleDSL exhibiting a common framework for both web and android.

PROJECTS

Vasha-Sikkha
Dart

- A flutter framework-based application that helps one learn English in a very interactive way. Users can practice speaking, reading, listening, and writing by completing different tasks. Users' scores are maintained and on completing a lesson, the user score will be updated, and he/she can view his/her ranking in the leaderboard.

CovidLife
Dart

- This is a flutter based health-related android application. Corona details of Bangladesh are shown here. Two built-in APIs are used to provide district wise and daily corona data.
- Doctor appointment,phone call or message can be made easily.

Bangla Fake News Detection
Python
- Data are collected from facebook posts and comments.
- Various machine learning algorithms like KNN, Logistic Regression ,Random Forest,Linear Support Vector, Naive Bayes, Decision Tree, XGBoost, Passive Aggressive Classifier algorithms are applied.

Gesture Sensed Snake Game
C,C++,Makefile
- This is a hardware project using Atmega32 and Accelerometer sensor.

Hotel Management System
Java,SQL
- This is a Java and Oracle Database-based project.
- JavaFX Scene Builder is used for the UI parts.
- In the database system, employees can be identified by their name, address, phone number, id, job title, salary, hire date
- The user can also add, delete, edit the reservation.

Online Poker
Java
- Java-based a multiplayer online card game.
- can be played by 2 different players connected with the game server.
- JavaFX Scene Builder is used for UI parts.

Baby's Walk
C,C++
- This is a simple iGraphics game.
- User has to balance a walking baby by left-right mouse clicking.

SKILL

- **Language:** C, C++, Java, Dart, Python, HTML, Assembly(80x86), Matlab, SQL, Typescript, F#.
- **Environment:** CodeBlocks, NetBeans, Emu8086, Android Studio, Visual Studio Code, Proteus.
- **Mobile Application Development:** Android, Flutter, React Native.
- **Database:** Oracle, MySQL, SQLite.
- **Tools and Platforms:** Git, Unity, Lucidchart, draw.io, OpenCV, Cuda, JavaFX Scene Builder, Tensorflow, Keras, PyTorch, Scikit-learn, Qualtrics.
- **Other:** Latex, Microsoft Office, Microsoft Powerpoint, Probability and Statistics, Data Structures, Unity.

REFERENCES

Dr. Rakibul Hasan
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Professor, Department of Computer Science and Engineering, BUET
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Dr. Anindya Iqbal
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