JAINTA PAUL

https://pauljainta.github.io/jp/ Salt Lake City, USA

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EDUCATION

Ph.D. Student

Kahlert School of Computing, University of Utah

Security, Safety, and Privacy of Cyber Physical Systems

January 2024 - Present

Bachelor of Science

Computer Science and Engineering

Bangladesh University of Engineering and Technology (BUET)

February 2017 - May 2022

Higher Secondary Certificate(Science Track)

Notre Dame College

August 2014 - June 2016

RESEARCH AND PUBLICATIONS

• [CCS-RICSS'24] Towards Cross-Physical-Domain Threat Inference for Industrial Control System Defense Adaptation

Jainta Paul, Lawrence Ponce, Mu Zhang, and Luis Garcia

In The 2nd International Workshop on Re-design Industrial Control Systems with Security (RICSS), co-located with The 31st ACM Conference on Computer and Communications Security (CCS), Salt Lake City, Utah, October 2024.

PROFESSIONAL EXPERIENCE

Software Engineer, OpenRefactory, Inc.

June 2022 - November 2023

Contribution:

- Test Drive OpenRefactory:
 - Role: Technical Leader
 - Website: https://testdrive.openrefactory.com/
 - Description: Developed a platform allowing users to initiate static code analysis trials for open-source projects. Users log in with GitHub, select projects, and choose Python, Java, or Go for analysis.
- Open Source Python and Java Projects Bug Analysis and Reporting:

Role: Full Stack Developer and Security Engineer

- Website: https://pypi.openrefactory.com/
- Description: The project involved finding security vulnerabilities and compliance bugs in open-source Python and Java projects through static source code analysis and automatically reporting them to the maintainer.
- Intelligent Code Repair(iCR):
 - Contributed to the Java core static bug detection engine. Worked with some static analysis techniques such as Call Graph Creation, Points to Analysis, Static Taint Analysis.

NOTABLE PROJECTS

Rider - A traffic Solution (Android Studio, Firebase)

GitHub

• Implemented some basic features of a ride sharing app.

Flickr (JavaFX, PostgreSQL, Pgadmin)

GitHub

• Implemented some basic features of flickr website.

Automated Car Parking Controller (Atmega 32, Lcd module, PIR sensors, Servo Motors) Youtube

- Implemented automated car parking lot.
- Visualized number of cars using LCD module.
- Materialised controller entrance and exit with servo motor and PIR sensors.

Compiler for C (Yacc, Lex, C, C++, Shell)

GitHub

- Implemented symbol table.
- Implemented lexer and parser.
- Implemented intermediate code generator.

EXTRA-CURRICULAR ACTIVITIES

- Capture the Flag(ctf) participation by iTrust SUTD (2024)
- Member of Organizing Committee, BUET CSE FEST 2018.
- Former Organizing Secretary of TABS (a students' organization of BUET).

REFERENCES

Dr. Luis Garcia

Assitant Professor, KSOC, University of Utah

Email: lgarcia@cs.utah.edu

Dr. ABM Alim Al Islam

Professor, CSE, BUET

Email: alim_razi@cse.buet.ac.bd

Dr. Munawar Hafiz

Founder and CEO, OpenRefactory, Inc.

Email: munawar@openrefactory.com