

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.
- [Accepted at The 17th NASA Formal Methods Symposium (NFM2025)] HyTwin: Hybrid Program Semantics for Digital Twin-based Security Interventions in Industrial Control Systems
Jainta Paul, Stefan Mitsch, and Luis Garcia
- [Accepted at The 55th Annual IEEE/IFIP International Conference on Dependable Systems and Networks(DSN)] ICSTRACKER: Backtracking Intrusions in Modern Industrial Control Systems
Md Raihan Ahmed, Jainta Paul, Levi Li, Luis Garcia, and Mu Zhang

PROFESSIONAL EXPERIENCE

Software Engineer, [OpenRefractory, Inc.](#)

June 2022 - November 2023

Contribution:

- Test Drive - OpenRefractory:
Role : Technical Leader
 - Website: <https://testdrive.openrefractory.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://triage.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).