Oyonika Samazder

Fredericton, New Brunswick

 linkedin.com/in/oyonika   oyonika@hotmail.com   oyonika   +1 (506) 262 8197

EDUCATION

University of New Brunswick   **Frederiction, NB**
Master of Computer Science (Thesis: Privacy Preserving Mobile Computation)   *January 2021 - present*
Research and Development of a scalable and adaptable privacy-preserving data sharing and aggregation system between mobile devices, the cloud server and other devices with low computational power

National Institute of Technology, Kurukshetra   **Haryana, India**
Bachelor of Technology (Computer Engineering)   *July 2015 - April 2019*

KEY SKILLS

Languages	C/C++, Python, Javascript, HTML/CSS, MySQL
Technologies	Firebase, Docker, GitLab CI/CD, Git, CMake, VSCode, Android Studio, GraphQL, LaTeX

PUBLICATIONS & PRESENTATIONS

ZTSGrid: A Zero-trust Approach for the SCADA System in the Smart Grid   *August 2022*
- Presented at the 19th Annual International Conference on Privacy, Security & Trust (PST'22) at Fredericton, NB
- Proposed a theoretical SCADA model that adopts the NIST zero-trust model with authentication, authorisation, identity and access management using tools like TLS/SSH, Auth0, Cloud IAM, OneLogin, OAuth2 and SAML

ACADEMIC PROJECTS

DetActivity (Bachelors Final Year Project)   *Aug 2018 - April 2019*
- Developed an Android app using Java for Human Activity Recognition (HAR) that used tri-axial smartphone accelerometers to collect data based on the user's activity and predict their fitness levels
- Modelled the human activity recognition using an LSTM Neural Network implemented in Python's TensorFlow

EXPERIENCE

NB Power Research Team, Canadian Institute for Cybersecurity   **Fredericton, Canada**
Graduate Research Assistant   *Jan 2021 - present*
- **Project:** Cyberattack Resilient and Privacy-friendly Smart Grid
- **Technologies:** Linux, Shell Scripting, Python, SQLite, CMake, VScode, Git
- Designing and developing a full-scale end-to-end secure smart grid simulation using data transfer protocols such as Modbus, SNMP and DNP3 and AES-256 encryption

Faculty of Computer Science, University of New Brunswick   **Fredericton, Canada**
Graduate Teaching Assistant   *Aug 2021 - Aug 2022*
- CS6411: Fundamentals of Information Assurance, CS6417: Software Security, and CS6419: Digital Forensics
- Responsibilities included grading assignments, reviewing code, assisting in labs and tutorials, moderating class presentations and answering queries related to cryptographic primitives, malware analysis and software security

WedMeGood Pvt. Ltd.   **Gurgaon, India**
Software Engineer   *Jun 2019 - Aug 2020*
- **Technologies:** Linux, React.js, Angular.js, Node.js, MongoDB, Express, HTML/CSS, Git, Bash Shell Scripting
- Developed enhancements and resolved defects/bugs impacting the mobile and desktop web app of WedMeGood
- Worked with cross-functional teams to ensure fulfilment of product requirements, evaluated product performance and transitioned patches from development to deployment
- Formulated test cases, developed change requests, refactored legacy PHP/Vue.js code and fixed multiple bugs
- Designed and developed in-house products such as Mynt, a membership-based program for special offers with premium brands and WMG Genie, a service that curates a personalized list of vendors for online customers
- Integrated third party applications such as Userlike Chat and Clevertap sitewide to improve customer experience

AWARDS AND ACHIEVEMENTS

- Research fellowship grant of 24,000 CAD/yr with Canadian Institute for Cybersecurity, Jan 2021 - present
- Elected as the Secretary of UNB Computer Science Graduate Students Association, April 2022 - present

EXTRA-CURRICULAR ACTIVITIES

- Volunteered at *"Let's Talk Science"*, Fredericton chapter, September 2022 - present
- Volunteered to teach Spoken English to middle school students in a school in rural parts of Kurukshetra
- Started a menstrual hygiene awareness initiative in collaboration with Paree, a sanitary napkin manufacturer