Oyonika Samazder

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KEY SKILLS

Languages: C/C++, Python, Javascript, Typescript, Dart, HTML/CSS
Libraries/Frameworks: NodeJS, ExpressJS, ReactJS, JSON, Flutter, Django
Tools: Splunk, Jenkins, Git, CI/CD Pipeline, Excel
Database: MySQL, SQLite3, GraphQL, NoSQL, MongoDB, Firebase
Cloud Technologies: Amazon Web Services (AWS), Heroku
Miscellaneous: SOLID Principles, Unit Testing, Agile Model, REST APIs, SDLC, Object-Oriented Design, Refactoring Techniques, LaTeX, HTTP, SSH, FTP, DNS

EXPERIENCE

Canadian Institute for Cybersecurity   **Fredericton, Canada**
Cybersecurity Researcher, NB Power Research Team   *Jan 2021 - Apr 2023*
- **Project:** Cyberattack Resilient and Privacy-Friendly Smart Grid
- **Technologies:** Linux, Shell Scripting, Python, SQLite, CMake, VScode, Git
- Research and development of a full-scale end-to-end secure smart grid simulation using data transfer protocols such as Modbus, SNMP and DNP3 and AES-256 encryption

University of New Brunswick   **Fredericton, Canada**
Front End Developer, The Gregg Centre for Study of War and History   *Feb 2023 - Apr 2023*
- **Project:** Veterans Affairs Canada - In Service of Canada (part-time contract)
- **Technologies:** React.js, Redux.js, Javascript
- Worked in collaboration with the Department of History at the University of New Brunswick to design the Veterans Affairs Canada platform.
- Made several executive module-related decisions to improve usability for the high school target audience.

University of New Brunswick   **Fredericton, Canada**
Graduate Teaching Assistant, Faculty of Computer Science   *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
- Integrated third party applications such as Userlike Chat and Clevertap sitewide to improve customer experience

EDUCATION

University of New Brunswick   **New Brunswick, Canada**
Master of Computer Science (Thesis: Virtual Privacy-Preserving IoT Data Analytics Platform with Applications in Smart Metering
     Jan 2021 - Apr 2023
Proposed and realised a practical, scalable and adaptable virtual privacy-preserving data analysis and aggregation framework between mobile devices, the cloud server and IoT devices with low computational power

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

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

AWARDS AND ACHIEVEMENTS

- Research fellowship grant of 24,000 CAD/yr with Canadian Institute for Cybersecurity, Jan 2021 - Apr 2023
- Elected as the Secretary of UNB Computer Science Graduate Students Association, Apr 2022 - Apr 2023