Syeda Chowdhury

Toronto, ON | sirat.chowdhury@outlook.com | 437-262-6916 | LinkedIn | GitHub | Website

EDUCATION

York University   **Expected June 2027**
Honours Bachelor of Science in Computer Science   *Toronto, ON*

- **Relevant Coursework:** Advanced Object-Oriented Programming, Data Structures, DBMS, Software Tools, Software Design, Operating Systems

TECHNICAL SKILLS

Languages:

- Java, Python, C, SQL, JavaScript, HTML/CSS

Data Warehousing & Visualization:

- Schema design, Integration, Advanced Excel (pivot tables, charts), Google Sheets (dashboards)

Frameworks & Processes:

- Unit Testing (JUnit), React, Git/GitHub, Linux, Postman, Docker, SDLC, UML, SOLID

Other Tools:

- VS Code, Eclipse, IntelIiJ IDEA, Linux CLI, Microsoft Office Suite (Word, Excel, PowerPoint, Outlook), Teams, Figma

PROJECTS

NutriSci: Group-Project | Java, Swing, MySQL, JFreeChart, GitHub

- Built a full-stack Java app in Agile sprints with a developer team, enabling meal logging, nutrient tracking, and personalized nutrient swap analysis, improving dietary accuracy by **30%**.
- Designed UML diagrams and followed TDD, creating **15+ unit tests** with **95% coverage** to ensure reliability.
- Replaced hardcoded logic with database-driven analyzers for **50+** nutrients and **10+** food groups.
- Delivered a 9-tab Swing UI with interactive charts, reducing nutrient report generation time by **40%**.
- Refactored codebase, reducing redundant code by **35%** and applying **5+ design patterns** to improve scalability and maintainability.
- Managed version control through GitHub, branching for features, committing updates, performing code reviews, and merge pull requests, reducing integration errors by **25%** and improving long term code stability.

Portfolio Website: Solo-Project | React, JavaScript, HTML/CSS, GitHub

- Implemented lazy-loading to cut initial page load time by **50%** and push Google Lighthouse Performance to **99%**.
- Ensured full **cross-browser** compatibility (Chrome, Firefox, Safari, Edge) and **100%** responsive design across **5** device breakpoints, boosting mobile usability score to **95%**.
- Managed state & props to maintain **data integrity** and the UI consistent across the app.

Multithreaded Alarms System: Group-Project | C, POSIX Threads, Semaphores, GitHub

- Worked in a 5-member team environment in building a concurrent alarm scheduler, sustaining **10+ alarms/sec** throughput with **< 20 ms** wake-up jitter.
- Optimized synchronization, cutting CPU utilization from **85%** down to **18%** at peak load.
- Wrote 15 test cases covering **83%** of code paths, catching and fixing all race conditions.
- Proactively coordinated team availability and project timelines to ensure efficient task delegation and on-time delivery.

AI-Powered Privacy Summarizer: Solo-Project | Next.js, JavaScript, OpenAI API, Chrome Extension API, HTML/CSS, GitHub

- Engineered a Next.js API endpoint to fetch, sanitize, and truncate up to 5,000 characters of privacy/terms text, then invoke OpenAI's GPT-3.5-turbo to generate a 1-4 sentence summary in **< 10 sec**, reducing manual review time by **75%**.
- Secured credential handling by encrypting the OpenAI API key in Render's environment variables, ensuring robust protection of sensitive data.
- Achieved **97% user satisfaction** in usability testing.

WORK EXPERIENCE

AI-Powered Workflow Automation Extern   **August 2025 – Present**
Extern   *Remote*

- Building AI-powered document intelligence pipelines by integrating OCR(Tesseract, PaddleOCR), vector search (FAISS/Chroma), and RAG techniques to extract, classify, and retrieve information from **50+** page mortgage documents.

- Engineering scalable Python workflows for document parsing, chunking, and metadata-driven search, while tuning retrieval precision and benchmarking open-source LLMs (Gemini, Mistral, Phi-2).
- Developing production-grade deliverables including a functional UI demo and technical report outlining system design, model trade-offs, and optimization strategies for enterprise document automation.

Cybersecurity Analyst (Internship)   **May 2025 – July 2025**
PatchIT   *Remote*

- Researched and analyzed **15+ CVEs** from the National Vulnerability Database (NVD), focusing on severity, impact, and exploitability.
- Mapped each CVE to relevant job roles, required proficiency levels, and associated technologies to support role-based vulnerability insights.
- Developed Python script to automate the retrieval of EPSS scores and exploit status, streamlining data collection by **80%**.
- Designed an interactive Streamlit dashboard enabling stakeholders to filter and visualize CVEs by severity and exploitability.

Customer Service Representative (Part-Time)   **November 2022 – Present**
The Rec Room   *Toronto, ON*

- **Deliver** exceptional customer service in a fast-paced, **high-pressure** environment, assisting **1,000+** customers/weekend.
- **Adapt** quickly to dynamic workplace events, demonstrating flexibility and the ability to learn new processes efficiently.
- Recognized for **teamwork**, **leadership**, and efficiency in simplifying operations.

Administrative/Clerical Support (Contract)   **April 2021 – August 2021**
City of Toronto, Toronto Public Health   *Toronto, ON*

- Maintained **10,000+** immunization records in Salesforce with **100%** accuracy**.**
- Streamlined reception flow, cutting client-intake time **20%**.