NUSRATH ZAMAN

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SUMMARY

Recent Software Engineering graduate with hands-on experience in full-stack development, data analytics, and machine learning. Skilled in building scalable, user-focused applications using React, Next.js, Node.js, Java, and SQL, with cloud exposure in AWS. Strong foundation in software design, testing (JUnit, Jest, Cypress), and machine learning. I am passionate about developing scalable, accessible solutions and committed to expanding my skills and contributing to a challenging and collaborative development environment.

EDUCATION

Bachelor of Engineering in Software Engineering
Concordia University — Montreal, QC (Sep 2019 – Jun 2025)

Relevant Coursework: Data Structures & Algorithms, Object-Oriented Programming, Web Programming, Operating Systems, Software Architecture, Software Testing & QA, Machine Learning, Data Analytics, Data Communication and Networks, Information System Security, Parallel Programming

TECHNICAL SKILLS

- **Languages:** Java, JavaScript, TypeScript, Python, SQL, HTML, CSS, C++

- **Frameworks:** ReactJS, React Native, NodeJS, ExpressJS, Spring Boot, Tailwind CSS

- **Databases:** PostgreSQL, MongoDB, Firebase

- **Testing:** JUnit, Jest, Cypress, Mockito

- **Cloud & DevOps:** Docker, AWS (S3, EC2), GitHub Actions

- **Networking & Security:** TCP/IP, UDP, HTTP/HTTPS; TLS/SSL, RSA, AES encryption

- **Tools:** VS Code, Git, Postman, JIRA, Figma, Android Studio, Wireshark, Burp Suite

- **Concepts & Methodologies:** OOP, SDLC, Agile (Scrum), Multithreading, Design Patterns

- **Soft Skills:** Problem-solving, Collaboration, Communication, Adaptability

PROJECTS

Sports Club Management Platform (Capstone) - Github, Drive
React, TypeScript, Spring Boot (Java), PostgreSQL, Jest, Agile (Scrum) | Sep 2024 – Apr 2025

- Built responsive frontend with role-based access control and seamless API integration.
- Used Spring Data JPA (@Query) to implement filtered post retrieval
- Collaborated on Docker containerization to streamline deployment and testing.
- Improved UI reliability through comprehensive front-end testing with Jest and Vitest.
- Fixed API data inconsistencies impacting UI by backend debugging using Postman.

- Integrated loglevel for logging and debugging effortlessly during the project.

Condo Management System - Github
React Native, Firebase, Express.js, Node.js, Cypress, Agile (Scrum) | Jan 2024 – Apr 2024

- Developed RESTful APIs with Express.js and managed backend data using PostgreSQL.
- Delivered responsive frontend with real-time sync leveraging Firebase and AWS S3.
- Implemented secure role-based access control ensuring robust API communication.
- Led end-to-end feature validation with Cypress testing to ensure quality and stability.

Medical Image Classification - Github
PyTorch, TensorFlow, NumPy, Pandas, Scikit-learn | Sep 2024 – Dec 2024

- Managed full-cycle data wrangling, training/testing splits, and hyperparameter tuning.
- Fine-tuned ResNet18 model improving accuracy from 95% to 99%.
- Applied transfer learning reducing training time by 30%.
- Visualized class separability with t-SNE and evaluated models using RMSE, F1 score, and classical ML classifiers.

CPU Scheduling Simulator
Java | Sep 2020 – Dec 2020

- Built Sorted/Unsorted List, Pointer- and Vector-based Min-Heaps from scratch.
- Implemented SJF, Round Robin, and FIFO scheduling algorithms in Java.
- Developed dynamic priority adjustment to prevent starvation.
- Simulated 1M jobs and analyzed performance and runtime complexity

Big Data Analysis: SQL & NoSQL
PostgreSQL, MongoDB | Sep 2022 – Dec 2022

- Collected and integrated real-world movie datasets from Kaggle
- Designed relational schemas in PostgreSQL and document-based models in MongoDB
- Created ER and NoSQL model diagrams for clarity.
- Implemented 10+ queries for actionable insights
- Reduced query time by 20% using indexing.
- Delivered a live demo comparing SQL vs. NoSQL, highlighting query efficiency, scalability, and system trade-offs for big data analysis.