# Sunil Kublalsingh

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### **Education**

**Concordia University** 

2021 - June 2026

Bachelor of Engineering - Computer Engineering

Montréal. QC

• Courses: Circuit Analysis, Digital Systems Design, Data Structures & Algorithms

Dawson College

2018 – 2021 Montréal, QC

DEC - Computer Science Technology

- Graduation Honours with Distinction
- Courses: JAVA, HTML, LINUX, SQL, C#, JAVASCRIPT

# **Work Experience**

### **Morgan Stanley** | Software Developer (Internship)

May 2024 - Aug 2024 | Montréal, QC

- Implemented full stack internal software using **REST endpoints** in **Java Spring Boot** speeding up SQL table **CRUD** capabilities by 23%, benefiting many teams across the department.
- Leveraged **multithreading** to efficiently **extract JSON schema** information from large data files, automatically generating clear and user-friendly table schema definitions.
- Created a simplified and easy-to-use interface under **ReactJS** and **TypeScript** to allow for quick and **real-time updates** of the changes done to the tables.

### Morgan Stanley | Software Developer (Internship)

Jan 2023 - Aug 2023 | Montréal, QC

- Migrated a trade confirmation delivery management system to Spring Boot with Gradle and a modern Java version, improving code maintainability and reducing customer confirmation times from 2 days to 1.
- Refactored legacy codebase using agile practices, improving modularity and easing future use.

# **Projects**

### Car Rental System | MongoDB, Express, ReactJS, Node.js

- Collaborated with a 5-person team to deliver a full-stack web application over 4 Agile sprints.
- Developed REST APIs to facilitate data exchange between user interfaces and server-side processing.
- Designed and implemented a dynamic **MongoDB** schema to support diverse car models and rental configurations, enhancing **system scalability** and **adaptability**.

#### AirZen | Android Studio, Java, ESP32, C++, Firebase Realtime Database

- Utilized **SCRUM** principles to lead a team in **engineering** a fully functional **embedded IoT** air quality monitoring device, **delivering** a working prototype in 3 sprints.
- Integrated Firebase for **cloud-based storage** and **data synchronization** from the device to the mobile app.
- Developed push notifications to alert users when air quality metrics exceeded set thresholds.

# Peer-To-Peer File System | Java

- Designed a **multi-threaded** client-server app that communicates using **UDP** and **TCP** for file transfers.
- Ensured concurrency and avoided deadlocks between threads using mutexes and semaphores.
- Enabled **real-time** and **periodic** updates to keep peer and file data in sync with **local persistence**.

# **Skills**

Programming: Java, Python, C#, C++, Kotlin, JavaScript/TypeScript, Bash Scripting, 80x86 Assembly, VHDL, Go

Web Development: HTML, CSS, ReactJS, NodeJS, Spring Boot, Flask, Express, Flutter

Databases: SQL, MongoDB, Firestore, Realtime Database

Tools: Git, Docker, Junit, Swagger, Jest, UML, VS Code, IntelliJ, Microsoft Office: Word-Excel-PPT

Languages: English, French

Interests: Music, Bouldering, Hackathons