

# Bhaskar Das

📍 Montreal, QC, Canada (Permanent Resident)

✉️ [bhaskardasr@gmail.com](mailto:bhaskardasr@gmail.com) ☎️ +1 263-999-8098

GitHub: [github.com/das-bhaskar](https://github.com/das-bhaskar)

Portfolio: [das-bhaskar.github.io/portfolio](https://das-bhaskar.github.io/portfolio)

LinkedIn: [linkedin.com/in/bhaskardasrj](https://linkedin.com/in/bhaskardasrj)

## SUMMARY

Software engineering student with experience building **scalable backend services** and multi-component processing systems. Strong foundation in **data structures, algorithms, object-oriented design, and the software development lifecycle (SDLC)**. Proficient in **Java, Python, C, C++, Linux**, with hands-on experience developing **RESTful APIs**, backend pipelines, debugging complex systems, and owning features from **design through deployment**.

## EDUCATION

### Concordia University

*Bachelor of Engineering in Software Engineering (Full-time Student)*

Montreal, QC

*Expected Graduation: 05/2027*

**Relevant Coursework:** Software Architecture and Design, Operating Systems, Database Systems, Computer Networks

## EXPERIENCE

### Reliance Jio Ltd.

05/2024 – 07/2024

Mumbai, MH

*Software Engineering Intern (Signal Processing/ AI)*

- Engineered a **custom audio diarization pipeline** in **Python** using MFCCs, sliding windows, and **CUDA**-accelerated processing
- Built speaker recognition using **NVIDIA NeMo**, **PyTorch**, and **KMeans clustering (scikit-learn)** for robust multi-speaker segmentation
- Integrated **OpenAI Whisper** for segment-wise transcription, achieving **98% accuracy** with fault-tolerant speech-to-text
- Developed an interactive **Streamlit** app supporting **WAV/MP4** uploads, audio extraction via **moviepy**, and analysis using **NumPy/ Pandas**

## PROJECTS

### ShareCycle | Java/Spring Boot, MySQL, Docker, JUnit, REST APIs

[github.com/das-bhaskar/ShareCycle](https://github.com/das-bhaskar/ShareCycle)

- Designed and developed a **microservices backend** for a bike-sharing platform using **Java and Spring Boot**
- Implemented **REST API** supporting rentals, availability, and station rebalancing using **design patterns**
- Applied **object-oriented design principles**, layered architecture, and design patterns for maintainable code
- Used **Docker** to containerize services and enable reproducible deployments
- Unit Testing & Integration Testing (JUnit)** and followed CI - friendly development practices

### Mudic – AI-Powered Wellness App | SwiftUI, Flask, Google Gemini API, Ngrok

[github.com/das-bhaskar/Mudic](https://github.com/das-bhaskar/Mudic)

- Developed **iOS frontend in SwiftUI** with dynamic pastel theming and **mood-based real-time UI updates**
- Built **Flask backend** with **REST API** & lightweight data persistence; tunneled via Ngrok for mobile integration
- Integrated **Google Gemini API** for **NLP**-driven mood analysis, personalized messages, haikus, and interactive vent/joke responses

### Technical Experiments | C, C++, TCP/IP, libnids, Bash

- Developed **client-server applications in C, C++**, implementing **TCP/IP** sockets and protocol handling for reliable data transfer
- Experimented with **Nintendo DS development**, capturing input and sending data to a local **API** for learning
- Created **Nintendo DS setup tutorial** for macOS with libnids from **Documentations**.  
[youtube.com/watch?v=raMW6wLBUBc](https://youtube.com/watch?v=raMW6wLBUBc)
- Developed a **Linux command-line wrapper** for **NordVPN** commands

## TECHNICAL SKILLS

**Programming Languages:** Java, C, C++, Python, Swift, HTML/CSS, JavaScript

**Frameworks and Libraries:** Spring Boot, Flask, React, Typescript, Node.js, Streamlit, Android (Java), iOS (Swift)

**Database & Cloud:** PostgreSQL, MySQL, NoSQL, Supabase, Firebase, Cloud Infrastructure

**Development & DevOps:** Git, Docker, Bash, Vim, GCC, CI/CD, Linux (Debian/Ubuntu), UNIX, GitHub Projects

**Core Competencies:** Agile Software Development, Object-Oriented Design, Object-Oriented Programming (OOP), SDLC, Design Patterns, UML, Data Structures and Algorithms, Debugging