Bhaskar Das

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GitHub: github.com/das-bhaskar **| Portfolio:** das-bhaskar.github.io/bhaskardas-portfolio

Software engineering student with experience in backend and full-stack projects using Java, Spring Boot, Python, and web/mobile frameworks. Interested in applying practical skills to develop solutions for real-world software engineering challenges.

SKILLS

Programming Languages: Java, C, C++, Python, Swift, HTML/CSS, JavaScript
Frameworks and Libraries: Spring, Spring Boot, Flask, React, Typescript, Node.js, Streamlit, Android (Java), iOS (Swift)
Database and Tools: PostgreSQL, MySQL, NoSQL, Supabase, Firebase, Cloud Infrastructure | Git, Docker, Bash, Vim, GCC, CI/CD | Linux (Debian/Ubuntu), GitHub Projects (Kanban)
Core Competencies: Agile Software Development, Object-Oriented Design, SDLC, Design Patterns, UML, Data Structures and Algorithms, Debugging

EDUCATION

Concordia University, Montreal Expected Graduation: May. 2027
Bachelor of Engineering in Software Engineering
NMIMS University, Mumbai 2022-2024
Bachelor of Technology in Computer Engineering

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

EXPERIENCE

Reliance Jio Ltd. - Software Engineering Intern (Signal Processing/AI) May. 2024 – Jul. 2024

- Engineered a custom audio diarization algorithm in Python using **MFCC extraction and sliding window buffers accelerated with CUDA** to segment and identify speakers, improving real-time reliability for large-scale conferencing applications
- Integrated OpenAI Whisper for segment-wise captioning and transcription, enabling 98% accuracy and fault-tolerant speech-to-text processing
- Developed a human voice detection module using WebRTC VAD with duration/amplitude-based filtering, reducing false positives by **40%** and improving detection accuracy

PROJECTS

ShareCycle – Software Developer

- Developed bike-sharing backend enabling rentals, real-time availability tracking, and station rebalancing with a scalable architecture, incorporating secure authentication, encryption
- Developed backend **REST** API using **Java/Spring Boot**, implementing core business logic
- Built **MySQL** persistence layer via **Docker Compose**, ensuring reproducible setup and data integrity
- Enhanced automated test suite by writing **unit and integration tests (JUnit)** for service and controller layers, to ensure production-quality code and support React frontend integration.

Mudic – AI-Powered Wellness App | (iOS + Flask + Google Gemini) [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 APIs** and lightweight data persistence; tunneled securely via Ngrok for mobile integration.
- Integrated **Google Gemini API** for NLP-driven mood analysis, personalized messages, haikus, and interactive vent/joke responses.
- Implemented modular endpoints for classification, text generation, and interactive features (venting, haikus).

LEADERSHIP

Harvard WorldMUN 2024 – Delegate, Team India | Taipei, Taiwan

- Represented Team India in the **Disarmament and International Security Committee (DISEC)**, focusing on **Quantum Computing and International Security**