Sathya Sriram

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EDUCATION

McGill University

Montreal, Canada

Bachelor of Science in Computer Science, Minor in Neuroscience

Aug. 2023 - Apr. 2027

Relevant Coursework: Object-Oriented Programming (Java, Python), Data Structures and Algorithms, Software Systems (Linux, C), Model-Based Programming (Java), Computer Systems (MIPS Assembly), Digital Logic (VHDL) Discrete Mathematics, Probability and Statistics, Political Science Research Methods (RStudio), Molecular Biology

TECHNICAL SKILLS

Programming Languages: Java, Python, C/C++, TypeScript, HTML, CSS, R, SQL

Data Science Tools: Pandas, Matplotlib

Machine Learning & AI: scikit-learn, PyTorch, Tensorflow, Langchain, NLP, MLOps, LMStudio

Web/App Development Frameworks: React, NextJS, Flutter, Kotlin, Flask Cloud, Databases & DevOps: AWS, PostgreSQL, Supabase, Prisma, CircleCI

Developer Tools: Git, Eclipse, IntelliJ, Gradle

EXPERIENCE

Software Developer Intern

Jun. 2025 – Aug. 2025

Genesys International Corporation

Mumbai, India

- Researched and implemented a **Green Light Optimised Speed Advisory (GLOSA)** algorithm, reducing stop times by **40**% and carbon emissions by **8**%.
- Analysed data requirements and evaluated algorithmic strategies to deliver a proof of concept, applicable across **5** intersections in India.
- Built 3 tools (routing, search_places, distance_matrix) for an AI navigation assistant with natural, human-like dialogue.
- Developed 3 Flask endpoints for session management, LLM response, and conversation history.
- Integrated real-time Automatic Speech Recognition (ASR) and speech synthesis for a hands-free navigation experience.

PROJECTS

${\bf Nuclear: AI\ Startup}\ |\ {\it Next.js,\ Tailwind\ CSS,\ Prisma,\ Supabase}$

May. 2025

- Co-founded Nuclear, an AI-powered learning companion startup, as CTO with a team of 4.
- Spearheaded a full-stack platform incorporating 3 study modes, content organisation, and multi-modal processing.
- Included a Redis-based caching system, reducing data retrieval by 60%.
- Selected by McGill TechAccel as one of 15 teams out of 200+ applicants.

Grocery Management System | Java, Gherkin, JavaFX

Apr. 2025

- Engineered a full-stack application with a team of 5 using the MVC pattern, with 14 controller classes and 11 model classes, delivering robust inventory, order, shipment, and user management features.
- Applied Test-Driven Development (TDD) principles by implementing 8 automated Cucumber test suites and 8 feature files, ensuring comprehensive test coverage and reliability across all core business processes.

SchizoSense | Python, Flask, scikit-learn

Dec. 2024

- Designed a web-based **Schizophrenia Diagnostic Tool** utilising logistic regression to classify patients using functional and structural brain imaging data with confidence scoring.
- Created a user-friendly interface to support mental health research and diagnostic analysis.
- Achieved key metrics: Accuracy: 77.78%, AUC: 91.36%, Log Loss: 43.18%.

Where's my Jam?: CodeJam 14 | Next.js, Python, FastAPI

Nov. 2024

- Developed a nutrition tracking application with a team of 3, integrating real-time barcode scanning to analyse nutritional data with health scoring algorithms.
- Built a Python backend with 5 RESTful endpoints.
- Integrated OpenAI GPT-4 for intelligent recipe generation and food classification with real-time data visualisation.