

SAKSHAM JOSHI

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OBJECTIVE

- I am a quick learner, adaptive, dedicated, consistent, and mature person who is always ready to push limits.
- A self-taught compiler engineer who solves complex problems using simple solutions that are efficient for computers to handle.
- While developing compilers or any other project, I focus on providing all necessary features while minimizing memory and power usage as much as possible.

EDUCATION

Bachelor's in Computer Application, Graphic Era Hill University 2021 - 2024
Coursework: Computer Fundamentals, Programming languages and Software Development.

SKILLS

Technical Skills	Compiler Engineering, GCC, Clang, LLVM, C, C++, Data Structures, Debugging, Optimization
Soft Skills	Project Planning, Attention to detail, Project Estimation, Project Management, Research

EXPERIENCE

Compiler Engineer and Technical Lead	July 2024 - Present
Unite Wings Global LLP	<i>Remote</i>

- Working on SRON's contributors program powered by Unite Wings.
- Developed the SRON programming language's version 1.6 using C and C++.
- Decreased the memory usage by 80% and power usage by 60%.
- Optimized and fasten the runtime of interpreter by 50%.
- Implemented loop unrolling, vectorization, parsing and fasten the byte code generation.

PROJECTS

SRON (Saksham Rapid Object Notation)

- A high-level, single-threaded, dynamically typed, functional and compiled + interpreted programming language.
- The compiler converts the source code to byte-code and saves it in a '.srb' file.
- Further, the interpreter loads the byte-code file and starts the execution of code.
- Developed using C and C++ from scratch.
- Provides extremely fast execution speed which even surpasses C in input/output operations. Faster than Python, Java, CSharp and JavaScript in several cases.
- Has a platform independent architecture.
- **Link:** [Source Code](#) — [Documentation](#) — [Download](#)

EXTRA-CURRICULAR ACTIVITIES

- Won a C++ Competition organized by WeCode Club in the university. View Results from [here](#).
- Successfully organized a C language Quiz with my colleagues in our university while managing 350+ applicants.