

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.
- Self-taught compiler engineer who solves complex problems using highly efficient solutions.
- While developing compilers or any other project, I focus on providing all necessary features while maintaining simplicity of codebase and optimizing code as much as possible.

EDUCATION

Master's in Computer Application, G.B. Pant University of Agriculture and Technology. 2024 - 2027
Coursework: Software Engineering, Data structures, DAA, C, C++, Java, Python.

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

SKILLS

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

EXPERIENCE

Compiler Engineer and Technical Lead July 2024 - September 2024
Unite Wings Global LLP *Remote*

- Worked on SRON's contributors program powered by Unite Wings.
- Developed the SRON programming language's version 2.1 using C and C++.
- Decreased the memory usage by 80% and power usage by 60%.
- Optimized the runtime of interpreter by 50%.
- Implemented lexical analysis, semantic analysis, dead code removal and binary 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 its execution.
- Developed using C and C++ from scratch.
- Provides extremely fast execution speed which even surpasses C in input/output operations. Faster than Python, Java, C# 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](#).
- Achieved #1 in another C++ Competition with more than 100 participants. View Certificate from [here](#).