SAKSHAM JOSHI

◇ Uttarakhand, India

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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 solutions that are highly efficient.
- While developing compilers or any other project, I focus on providing all necessary features while maintaining simplicity of code base 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, Scripting, C, C++ Java, Python.

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, 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 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.