

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 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 minimizing memory and power usage 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, Project Estimation, Project Management, Research

EXPERIENCE

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

- 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.