Vipul Cariappa

Student

I love Computer Science and Mathematics. My interests are programming language design, formal logic, and automata theory. My interests keep changing as I am still exploring the vastness of computer science. I am very much fond of open-source technologies and love to contribute. I am trying to learn, explore, and share my findings with others.

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EDUCATION

B. Tech in Computer Science and Engineering
Ramaiah University of Applied Sciences

11/2021 - Present *Bangalore, Karnataka, India*

SKILLS

Python   C/C++   Rust   HTML/CSS/JS   Linux

Cloud Computing   OCaml

WORK EXPERIENCE

Internship
Google Summer of Code (GSoC) with Python Software Foundation

05/2024 - 09/2024
LPython Sub-Org. LPython is a statically typed compiled programming language with syntax inspired by Python.

Contributions

- My work focuses on implementing a REPL shell and Jupyter Kernel for LPython, and to support Interoperability between CPython and LPython.

- Link: https://summerofcode.withgoogle.com/programs/2024/projects/4zWsi3Aq

Internship
Google Summer of Code (GSoC) with GNU Octave

05/2023 - 09/2023 *Remote*
GNU Octave is a programming language for scientific computing with syntax largely compatible with MATLAB.

Contributions

- My work focused on improving the state of the octave-pythonic package of Octave. Octave-Pythonic provides support to use/call Python functions, modules, and classes from within Octave REPL. Octave-Pythonic aims to be MATLAB compatible. My goal for the project was to fix bugs, add in many of the missing features, support the latest version of Python, and fix issues related to using Octave-Pythonic on Windows

- Link: https://summerofcode.withgoogle.com/programs/2023/projects/aeEAbtyR

Open Source Contributions
Open-Source

Contributions

- Implemented visualizer for Push Down Automata for automata. (My Work)

SELECT PERSONAL PROJECTS

logic
- Logic is a predicate logic simulator. It can be used to create automated proof.
- GitHub: https://github.com/Vipul-Cariappa/logic

KariLang
- A toy programming language inspired by OCaml language. KariLang can compile and interpret the source code. The compiler is written using the LLVM compiler toolchain.
- GitHub: https://github.com/Vipul-Cariappa/KariLang

PyC
- PyC is a general-purpose binding between Python Programming Language and C. My goal behind developing this binding is to enable the use of C libraries inside Python with no modifications to the source libraries and without any recompilation.
- GitHub: https://github.com/Vipul-Cariappa/PyC

py-lua
- Similar to PyC, py-lua is also a general-purpose binding. This time it is between Python Programming Language and Lua Programming Language. Py-lua lets you use any Lua module inside Python and also allows the use of any Python module inside Lua. It converts data types between the two languages seamlessly including classes and objects.
- GitHub: https://github.com/Vipul-Cariappa/py-lua

coder
- I was inspired by competitive programming sites like Leetcode and Codewars. I wanted to know how these sites are implemented. So I created my version of it. People and students wanting to learn to code can try out the challenges available. Here you can also post your challenge questions.
- GitHub: https://github.com/Vipul-Cariappa/coder
- Website: https://codeturing.in/

CERTIFICATES

Cloud Digital Leader By Google Cloud ⧉