Raghuveer Shivakumar

Software Engineer

+1 (720)-761-1304 | raghu@raghu.cc

GitHub | Linkedin | Website

Education

2021–Present **MS in Computer Science**, *University of Colorado*, Boulder
Expected Graduation: 2023 | CGPA: 4.0/4.0

2012–2016 **BE in Information Science**, *Visvesvaraya Technological University*, VTU
First class with distinction | CGPA: 8.93/10.0

Skills

- Proficient in idiomatic `C++11/14, C, and System Design`.
- Working proficiency in `C++17/20, Python, Java, JS, Docker, Kubernetes`.
- Proficient in `SVN, Perforce, Git, Cmake, GDB, MySQL, REST, gRPC, GCP`.

Experience

2022–2022 **Software Engineer Intern**, *AMD*, San Jose
- Implemented a digital-signature-based binary verification tool to replace the old checksum-based binary verification tool.
- Developed a parser for IEEE1735 DSL that is used for IP encryption.

2019–2021 **Software Engineer**, *Self*, Bangalore
- Developed a contractor mgmt app for the South Western Railways accounting dept, maintenance app for Prakruthi Apartments among several others.

2018–2019 **R&D Engineer II**, *Synopsys*, Bangalore
- Developed a cli-tool to enable IEEE1687 compliance in non-standard IPs.
- Implemented a parser for IEEE1687 DSL (namely ICL and PDL).
- Worked on the serialization of the entire DFT Codebase.
- Worked on many critical bug fixes and enhancements related to pattern generation, synchronization, and serialization.

2016–2018 **System Software Engineer**, *Hewlett-Packard Enterprise*, Bangalore
- Developed REST APIs to manage temperature induced fs corruption in multi-node systems and to add support for role-based access control in StoreOnce user mgmg module.
- Developed REST APIs to add support for powercyle and SSH vaulting.
- Worked on many customers facing and pre-production bugs related to user mgmt, security, ssh, and firmware.

Teaching

2022–Present **Student Assistant for CSCI 5525 Compiler Constructions**, *CU Boulder*
Worked on upgrading the compiler for the course. Implemented parser, optimizations, closure, regalloc, etc.

2021–Present **Teaching Assistant for CSCI 2400 Computing Systems**, *CU Boulder*
Conducted office hours for labs(cpp optimization, debugging, profiling, code injection etc) and managed course logistics(such as setting up exams, quizzes, assignments etc).

Projects

Spring 2022 **PyWASM - Python to WASM Compiler**, *Compiler Constructions*
Created an optimized python(subset)-to-webassembly compiler as part of CSCI 5525.

Fall 2021 **Signless - Anonymous Publishing Platform**, *Datacenter Scale Computing*
Working on developing an anonymous publishing platform with backlinks, search, tagging, etc as part of the DCSC Course to enable civil discourse online.

2016 **IEEE 802.11 AC/AD Packet Encoder, Decoder, and RCS**, *Capstone Project*
Developed a packet encoder and decoder for 802.11ac/ad wifi packets for a next gen wireless router for a startup named Asarva.