SAI KAUSHIK S

LinkedIn Profile | GitHub Profile | Personal Website
saikaushik609@gmail.com | ssaikaushik0802@gmail.com | +91 95917 16202
Bangalore, KA

Experiences

KLA – Tencor Software, Chennai

- Associate Software Engineer — JUL 2023 – AUG 2024
  - Acquired knowledge of semiconductor domain and its production cycle.
  - Resolved bugs and feature requests in a 3-tier application.
  - Executed performance and stress tests on Oracle DB CRUD using C++ libraries (Pro*C, Rogue Wave and OCCI)
  - Designed and implemented UI elements for the application using C# WPF.

  Technologies: C++, Oracle DB, C#, WPF
- Software Intern — JAN 2023 – JUN 2023
  - Worked on a desktop application that collects logs from the system based on user specified inputs.
  - Redesigned a web application that generates the throughput report from user uploaded logs.

  Technologies: Python, PyQt6, Django, React, Java, Bootstrap
- Software Intern — MAY 2022 – OCT 2022
  - Developed a web application to automate the creation and deployment of VMs on VMWare servers.
  - Reduced the deployment time of the VMs by 12x from 2 hours to 10 minutes.

  Technologies: .NET Core, Angular, VMWare vSphere

Shakti Group, IIT Madras

- Intern — MAY 2021 – DEC 2021
  - Worked on QSPI and SDIO modules of the in-bred microprocessor.

  Technologies: Bluespec SystemVerilog

Education

Indian Institute of Information Technology, Design & Manufacturing, Kancheepuram — JUL 2018 – APR 2023
Dual Degree (B. Tech + M. Tech) Computer Science and Engineering | CGPA: **8.78/10**

Projects

Lorenz Attractor Parallelization Algorithm [link] — NOV 2021

- Visualization of Lorenz Attractor using the Lorenz Equations. Using OpenMP, MPI, CUDA to improve the performance in multi-core processor, Cluster computer and GPU respectively.
- Achieved a 12% gain in performance with the OpenMP implementation of the same.

Technologies: C, OpenGL, OpenMP, MPI, CUDA.

VLIW Architecture Simulation [link] — APR 2021

- Simulation of a 32-bit 5-stage pipelined VLIW processor with an input of an assembly file, and monitor the updating processor register file.
- Attained 100% accurate outputs with the generated processor.

Technologies: Python3, Verilog.

Key Distribution Centre (Kerberos) [link] — APR 2021

- A multi-threaded GUI application for secure server-client communication by issuing multiple encrypted tickets.
- The 3 servers created include a chat application, a multiplayer quiz platform, and a file transfer application.

Technologies: Python3, PyQt5, sockets, threading, SQLite, cryptography.

Netlist Viewer and Simulator [v link] [vm link] APR 2021

- Programs that generate a graph from an input Verilog (v) file, or Verilog netlist (vm) file.
- Using Triple modular redundancy (repeating a module 3 times and selecting the duplicate output) approach to decrease the risk of failure of the hardware.

Technologies: Python3, NetworkX.

Skills

Proficient in C, C++, Python, CUDA C/C++, OpenMP, C#, .NET Core, WPF, Git, Verilog, Oracle DB, Angular JS, React JS, Microsoft Azure, Microsoft Office, Figma
Familiar with Java, Spring Boot, Docker, RHEL servers, Latex, Bluespec SystemVerilog

Academic and Extracurricular Achievements

- Secured 93.5 percentile in GATE 2021 (CS paper) 2021
- Awarded with Participation Certificate as Quarter Finalist in Swadeshi Microprocessor Challenge 2020 2020
- Hosted a Gaming Event (VINSAK) in College Cultural Fest with participants count of over 100 2019