

# Sai Kaushik Sudhakaran

Associate Software Engineer



Website



sai-kaushik-s



saikaushiks



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## EXPERIENCE

### KLA - TENCOR SOFTWARE | ASSOCIATE SOFTWARE ENGINEER

July 2023 – August 2024 | Chennai, India

- Acquired knowledge of the 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 OCCl).
- Designed and implemented UI elements for the application using C# WPF.

**Technology Stack:** C++, C#, WPF, Oracle DB, Git, Azure, Docker, RHEL Servers

### KLA - TENCOR SOFTWARE | SOFTWARE INTERN

January 2023 - June 2023 | Chennai, India

- 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.

**Technology Stack:** Python, PyQt6, Django, React, Java, SpringBoot

### KLA - TENCOR SOFTWARE | SOFTWARE INTERN

May 2022 – October 2022 | Chennai, India

- Developed a web application that reduces the creation and deployment of VMs on VMWare servers.
- Reduced the deployment time of the VMs by 12x from 2 hours to 10 minutes.

**Technology Stack:** .NET Framework, Angular, VMWare vSphere

## PROJECTS

### LORENZ ATTRACTOR PARALLELIZATION ALGORITHM

- Visualization of Lorenz Attractor using the Lorenz Equations. Using OpenMP, MPI, and CUDA to improve the performance in multi-core CPUs, cluster computers, and GPUs, respectively.
- Achieved a 12% gain in performance with the OpenMP implementation of the same

**Technology Stack:** C, OpenGL, OpenMP, MPI, CUDA

### VLIW SIMULATOR

- 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.

**Technology Stack:** Python3, Verilog

### KEY DISTRIBUTION CENTRE (KERBEROS)

- 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.

**Technology Stack:** Python3, PyQt5

## SKILLS

### PROGRAMMING

Proficient:

C • C++ • Python • C#

Experienced:

Java • JavaScript • SQL • LaTeX

Familiar:

Kotlin • Powershell Script

### LIBRARIES/Frameworks

PyTorch • TensorFlow  
Django • Spring  
.NET Core & Framework • WPF  
React • Angular

### TOOLS/PLATFORMS

Git • Microsoft Azure  
Visual Studio • VS Code  
Docker • Kubernetes  
gRPC • Postman

## EDUCATION

### INDIAN INSTITUTE OF INFORMATION TECHNOLOGY DESIGN AND MANUFACTURING KANCHEEPURAM

B. TECH. AND M. TECH. IN  
COMPUTER SCIENCE AND  
ENGINEERING WITH SPECIALIZATION  
IN SYSTEM DESIGN

July 2018 - May 2023 | Chennai, India

CGPA: 8.78 / 10

## ACHIEVEMENTS

SECURED 93.5 PERCENTILE IN GATE  
2021 (CS PAPER)

2021

QUARTER FINALIST IN SWADESHI  
MICROPROCESSOR CHALLENGE

2020