

Shashi Prakash Shah



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Skills

C++, Python, Data Structures & Algorithms, GDB, Valgrind, Purify, OOPs, Linux, Scripting, Makefiles, SVN

Experiences

Interra Systems

Software Developer Engineer - EDA

Noida

July 2022 - Present

- Spearheaded GDSII layer editing utility in C++ and YACC, boosting productivity by 20%.
- Engineered user-friendly error messages and introduced GDB tracing through signal handling cutting debugging time by 10%.
- Reinforced in-house language, MDL's built-in support for array and hash through C++, contributing to a 20% reduction in data corruption incidents and enhancing software stability.
- Analyzed using profiler and increased parallel compiler execution by 33%, and improved memory usage by 34% on a 200-core system through memory optimization in the C++ codebase, enhancing resource efficiency.
- Rectified and optimized array initialization process in MDL, resulting in a 20% reduction in crashes and enhanced overall performance.
- Achieved a CPP-based GUI view for GDSII, offering a visual representation of sub-circuit and cell ports for improved debugging, reducing error resolution time by 5%.
- Transformed GDSII element hierarchy copying by introducing new C++ APIs, leading to a 20% reduction in time spent on manual placement for memory design tasks.
- Simplified MDL code by 30% with YACC rule enhancements for array creation.

Internship

Einsehen

Chatbot Development Intern

Remote

July 2020 – September 2020

- Developed a Django-based chatbot for seamless MySQL interaction via natural language queries; boosted user satisfaction by 25%.
- Automated query conversion with NLP, reducing manual query time by 80%.

CSIR - Central Mechanical Engineering Research Institute

Summer Intern

Durgapur

June 2019 - July 2019

- Created a Bengali Voice-based (Q/A System), leveraging Google's Speech-to-Text and Text-to-Speech APIs, decreasing response time by 30%.
- Applied TF-IDF and cosine similarity to enhance query relevance by 40%.

Education

Master of Technology

Computer Science and Engineering, CGPA - 8.69

Indian Institute Of Engineering Science and Technology

June 2020 - July 2022

Bachelor of Technology

Computer Science and Engineering CGPA - 8.93

Academy of Technology

June 2016 - July 2020

Projects

CS5172: XML2C_Struct

Team size: 1

M.Tech Course Project, IEST, Shibpur

- Implemented an application to convert XML data into C structs and arrays, achieving 95% accuracy in representation.
- Utilized flex and bison for parsing, ensuring precise and efficient processing, with an average parsing time of under 5 milliseconds per XML file.

Text Summarization Using Sentence Embedding Similarity with Clustering

Team size: 1

M.Tech Thesis, IEST, Shibpur

- Developed a text summarization system integrating BERT embeddings, for semantic clustering and fact extraction, attaining a Rouge recall score peaking 71.59% across various summarizing methods.
- Consistently maintained high recall scores (above 60%) across various corpus sizes, effectively capturing pertinent information.

CS892: Birds Species Classification

Team size: 4

B.Tech Project, Academy of Technology

- Engineered a 15-layered Convolutional Neural Network(CNN) using Keras for bird species classification.
- Achieved 91% accuracy for the Caltech-UCSD Birds dataset, comparable to industry-standard models like ResNet and VCC-16.