KISHAN VED

Junior Undergraduate

Discipline of Computer Science and Engineering

Indian Institute of Technology Gandhinagar

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GitHub | Website | LinkedIn

EDUCATION

B.Tech	Computer Science and Engineering, IIT Gandhinagar	2022-26	*CGPA:* *9.45*
Class XII	Prakash College, Mumbai	2022	*85%*
Class X	Thakur International School, Mumbai	2020	*97.8%*

INTERNSHIPS

- **Software Engineer Internship , Tower Research Capital India Pvt. Ltd**   *(July 2025 - Dec 2025)*
  - Developing software for trading teams to manage massive amounts of data. Implementing a service with million+ transactions daily. Working on development of 3 high impact projects with complete ownership.
- **Software Engineer Internship , Microsoft India (R&D) Pvt. Ltd. |** Certificate   *(May 2025 - June 2025)*
  - Developed an AI agent framework to handle and solve errors for Azure Networking services. Leveraging RAG (information retrieval) and NLP to create intelligent agents that can automate workflows.
  - Achieved auto resolution of 1000+ errors per day. Reduced manual labor significantly (3000+ hours daily)
- **Google Summer of Code , NumFOCUS |** Project Code **|** Verification Letter   *(May 2024 - Aug 2024)*
  - Enhanced and optimized PyDataStructs' C++ backend by integrating advanced tree data structures like AVL Trees, Red Black Trees, and Cartesian Trees. Technology used: C++, Python, Python-C API, Git, GitHub
  - Achieved an 8-10x increase in execution speed and reduced latency for high-performance computing

WORK EXPERIENCE : OPEN SOURCE SOFTWARE DEVELOPMENT

- **LFortran & LPython (LLVM-based Compilers) | 15 Merged PRs |** PR links: LFortran, LPython
  - Implemented Fortran intrinsic functions in the C++ backend with comprehensive tests, resolved issues and programmed advanced functions. 10 merged PRs in LFortran, 5 merged PRs in LPython
- **Automated LATEX Resume Generator with AI, Project Founder and Maintainer |** Website **|** GitHub
  - Ideated and crafted an innovative open-source project used by over 1000 students to produce high-quality resumes. Participated in Hacktoberfest 2024 as the project's core maintainer and received 25+ PRs

RESEARCH EXPERIENCE - MACHINE LEARNING

- **FIT-GNN: Faster Inference Time for Graph Neural Networks Using Coarsening |** Paper link **|** GitHub
  Co-authored a research paper that presents a novel approach to make GNNs scalable by optimizing the time and memory consumption during the inference phase reducing operational burden on compute infrastructure

PROJECTS

- **Pre-Trained LLM for Nepali Language with 80 million parameters |** HuggingFace **|** GitHub **|** Dataset
  Scrapped 10000+ articles, curated 120 GB of raw Nepali data to train 7 tokenizers and a large language model based on Llama architecture. The model can be fine tuned for various real world applications
- **OSL - Self-made programming language: Compiler and Bytecode executing VM |** GitHub | Documentation
  Engineered a programming language and its compiler with first class functions, lexical scoping, unambiguous grammar, closures and advanced features. Solved 10+ Euler problems with full support for real world use.
- **DNS stub resolver using AF_XDP sockets and eBPF |** GitHub **|** Video Demo
  Designed an architecture for the network packet to directly enter user space by bypassing the Linux kernel's network stack completely resulting in extremely fast resolution of DNS packets. Attained 10x increase in speed.

SKILLS

- **C++, C, Python, Java - SpringBoot, HTML, CSS, JavaScript, SQL, Network Programming (TCP/IP), Operating Systems Programming, Compiler development and optimization**
- **Linux, Git, GitHub, PyTorch, Tensorflow, HuggingFace, Numpy, Pandas, Docker, Microsoft Semantic Kernel**

COURSES - *(11/10 is awarded for exceptional performance and ranking #1 in the batch)*

- Machine Learning (11/10), Natural Language Processing (11/10), Data Science (10/10), Computer Architecture (9/10), Compilers (10/10), Databases (9/10), Computer Networks (8/10), Operating Systems (10/10)

ACHIEVEMENTS

- Accomplished Specialist level on Codeforces, earning 1524 contest rating (maximum). Codeforces Profile
- Led the IIT Gandhinagar contingent in InterIIT Tech Meet 13. Secured a fantastic performance with 2 trophies
- Attained an elite position with All India rank 1348 in IIT-JEE (JEE Adv), being in the top 0.01% students
- Solved 250+ DSA questions, among the top 5.79% users globally (Leetcode Knight) with a rating: 1854+. Profile
- Awarded 11/10 grade awarded for outstanding performance in 5 courses showcasing academic excellence