## **KISHAN VED**

Junior Undergraduate
Discipline of Computer Science and Engineering
Indian Institute of Technology Gandhinagar

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<b>EDUCATION</b>			
B.Tech	Computer Science and Engineering, IIT Gandhinagar	2022-26	CGPA: 9.62
Class XII	Prakash College, Mumbai	2022	85%
Class X	Thakur International School, Mumbai	2020	97.8%

### **INTERNSHIPS**

Google Summer of Code , NumFOCUS

(May 2024 - Aug 2024)

Software Developer

- Developed and optimized <u>PyDataStructs</u>' C++ backend, integrating advanced tree data structures like AVL Trees, Red Black Trees, Splay Trees and Cartesian Trees. Added over 4000 lines of code
- Achieved an 8-10x increase in execution speed for high-performance computing tasks
- o Technology used: C++, Python, Python-C API, Git, GitHub. Links: Project Code, Verification Letter

## **OPEN SOURCE SOFTWARE DEVELOPMENT**

- LFortran (LLVM based Fortran Compiler) | 10 Merged PRs | Contributions Link
  - Implemented Fortran intrinsic functions in C++ backend with comprehensive tests
  - Collaborated with the development team to resolve issues in string slicing, data type handling, and addressed emitted warnings, resulting in achievement of project milestones and 3 releases
- LPython (Ahead-of-time Python Compiler) | 5 Merged PRs | Contributions Link
  - Programmed advanced functions in the NumPy module, developed 3 string APIs and enhanced version control, guaranteeing perfect CI checks on GitHub. Contributed to overall development
- Smart LATEX Resume Generator with AI, Project Founder and Maintainer | Website | GitHub
  - Designed and deployed an innovative website for generating resumes in LaTeX, which assisted over 1000 IITGN students in producing high-quality resumes. Technology used: HTML, CSS, JS, Groq API
  - Participated in Hacktoberfest 2024 as the project maintainer and received 25+ pull requests

### **PROJECTS**

- Image Super Resolution and Reconstruction using Machine Learning | GitHub
   Leveraged advanced ML techniques like Matrix Factorization and Random Fourier Features to enhance resolution and reconstruct images. Utilized Python and relevant libraries
- 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 that recorded a perplexity of 171 on sentence completion

# **SKILLS**

- C++, C, Python, Python-C API, Java, HTML, CSS, JavaScript, SQL, Grog API
- Ubuntu (Linux), Git, GitHub, MATLAB, PyTorch, Tensorflow, HuggingFace, Numpy, Pandas, Streamlit

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

- CS: Machine Learning (11/10), Natural Language Processing (11/10), Data Science (10/10), DSA (10/10)
- Mathematics: Probability, Statistics and Data Visualization (10/10), Numerical Methods (11/10), Linear Algebra and Single Variable Calculus (10/10), Differential Equations (10/10), Discrete Mathematics (9/10)

## **ACHIEVEMENTS**

- Accomplished Specialist level on Codeforces, earning a maximum rating of 1524. Codeforces Profile
- Achieved Dean's List for all semesters till date at IIT Gandhinagar, showcasing academic excellence
- Designated as a Reliance Foundation Undergraduate Scholar (received by top 2000 applicants)
- Attained an elite position with All India rank 1348 in IIT-JEE, being in the top 0.01% students
- Solved 245+ DSA questions on LeetCode, among the top 13.23% users with a contest rating: 1696. Profile

## **POSITION OF RESPONSIBILITY**

Deputy Contingent Leader IITGN, InterIIT Tech Meet 13.0 (Oct 2024 - Dec 2024)
 Led the contingent of 60+ members and secured a fantastic performance with 2 trophies - 1 silver and 1 bronze at the InterIIT Tech Meet 13.0. Served as the coordinator of IITGN's Technical council