KISHAN VED

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

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EDUCATION			
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

WORK EXPERIENCE: OPEN SOURCE SOFTWARE DEVELOPMENT

- LFortran (LLVM based Fortran Compiler) | 10 Merged PRs | Contributions Link
 - o 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
 - Crafted and deployed an innovative website for generating professional resumes in LaTeX. Used by over 1000 students to produce high-quality resumes. Made using: HTML, CSS, JS, Groq API
 - Participated in Hacktoberfest 2024 as the project maintainer and received 25+ pull requests

RESEARCH EXPERIENCE AND PROJECTS

- FIT-GNN: Faster Inference Time for Graph Neural Networks Using Coarsening | Paper link | GitHub (Under review at an international A* Artificial Intelligence research conference)

 Co-authored a research paper that presents a novel approach to improve the scalability of GNNs
- 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 A+ (11/10) grade in 4 courses. Ranked #1 in a class of 250+ students in these courses
- Designated as a Reliance Foundation Undergraduate Scholar (received by top 2000 applicants)
- Attained an elite position with All India rank 1348 in IIT-JEE (JEE Adv), being in the top 0.01% students
- Solved 245+ DSA questions on LeetCode, among the top 8.29% users with a contest rating: 1783. Profile

POSITION OF RESPONSIBILITY

Technical Coordinator, Technical Council, IIT Gandhinagar
 (May 2024 - Present)

 Led the IIT Gandhinagar contingent of 60+ members at the InterIIT Tech Meet 13.0 and secured a fantastic performance with 2 trophies - 1 silver and 1 bronze. Organized hackathons, workshops and orientations