Vedant Asati

Education

Indian Institute of Science Education and Research (IISER) Bhopal

2025-Present

BS-MS(Dual Degree) in Natural Science

- o Curently pursuing undergraduate studies at IISER Bhopal
- o Coursework: Linear Algebra, Introduction to Programming, Quantum Mechanics, Calculus of One Variable

Skills

Programming Language: Python, JavaScript, C/C++, HTML/CSS, SQL, Go, Markdown

Framework & Libraries: Textual

Tools & Technologies: Git, Github, VS Code, PyCharm, Vim, Linux

Projects

Tusk



- o Developed a modern terminal-based Markdown editor with vim keybindings and real-time preview functionality
- o Implemented advance text editing features including auto-completion for brackets, quotes, and markdown syntax
- Created an extensible snippets system with built-in templates for common markdown elements and support for custom snippets
- Built multi-format export capabilities (HTML, PDF, DOCX) using pandoc integration, with an intuitive command palette interface

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- Developed a feature-rich command-line music player with online streaming, offline playback, and a responsive terminal user interface using Python and the Textual framework
- Implemented comprehensive playlist management with Spotify integration, allowing users to import, manage, and play their music libraries entirely within the terminal
- Engineered a modular architecture with separate service layers for audio playback, lyrics display with translation capabilities, and music download management
- Designed an efficient caching system and backup/restore functionality to optimize performance and ensure data persistence

- Developed a plugin that brings powerful Vim-like modal editing to the Textual TUI framework, with seamless integration for efficient text navigation
- o Designed an extensible architecture that enables custom command creation and workflow automation
- Enhanced Tusk markdown editor's functionality through direct integration, significant improving productivity for keyboard- driven workflow

Position of Responsibility

Core Committee Member - Computer and Networking Council, IISER Bhopal

Achivements

 Selected as a finalist in the internal Smart India Hackathon(SIH) 2024 preliminary round, collaborating with team members to develop and present a solution