

Statement of Purpose - FOSSEE Internship Screening

I am Manoj Kumar Mandal, and I am writing to express my strong interest in participating in the FOSSEE Internship Programme. I am particularly motivated by projects involving open-source development, scientific computing, and practical problem-solving, which align closely with FOSSEE's mission of promoting open-source tools and education.

Task 1: Binary Tree Python Package with YAML Integration

I designed a Python package for binary tree implementation with full CRUD operations and YAML support. This strengthened my understanding of data structures, recursive algorithms, file parsing, and Python package structuring suitable for pip installation. Implementing YAML-based tree construction and serialization allowed me to work with real-world data interchange formats and reinforced clean code practices.

Task 2: Blender Add-on

I developed a Blender add-on using Python, which involved creating UI panels, designing operators, handling user input, generating 2D cube arrays, and managing mesh merging based on shared faces. This project enhanced my skills in event-driven programming, 3D geometry handling, and plugin-based software design.

I am particularly inspired by FOSSEE's focus on contributing to open-source ecosystems and providing students with hands-on technical exposure. I believe this internship will allow me to further develop my skills while contributing meaningfully to impactful projects. I am eager to learn, collaborate, and uphold high technical standards throughout the internship.

Thank you for considering my application.

Manoj Kumar Mandal