DeepBioP Architecture

Bioinformatics Data Processing Library

Users

Rust Applications	Python Applications

API Layer

Rust API	Python API

Core Functionality

File Format Processing

- BAM/SAM Processing
- VCF/BCF Processing
- FASTQ Processing
- BED/GFF/GTF Processing

Data Operations

Sequence Operations
- Quality Control
- Sequence Filtering
- Format Conversion

Image Operations
- Preprocessing
- Format Conversion

Utilities

- Parallel Processing
- Memory Management
- I/O Operations
- Error Handling