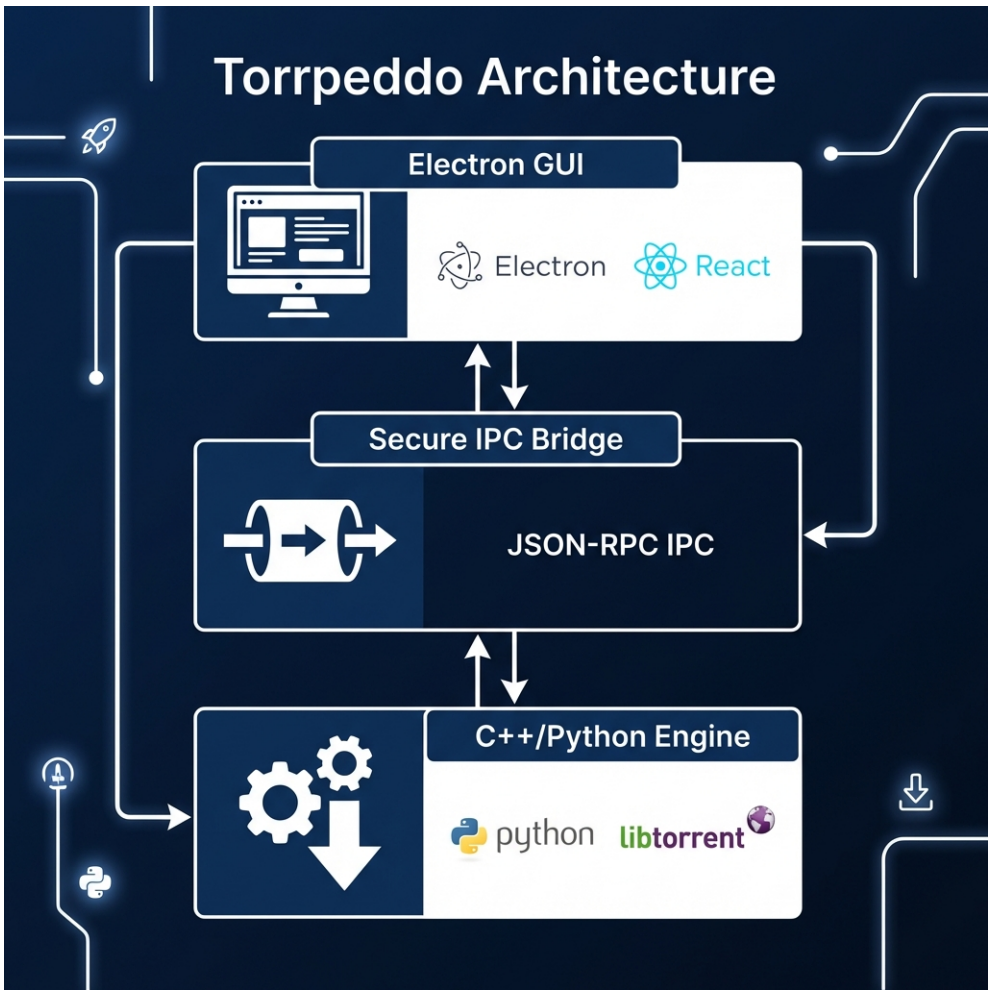
TORRPEDDO PROJECT BOOK



Executive Summary

Torrpeddo is an industrial-grade, premium torrent client designed for the modern desktop. Built primarily with Python and the Electron framework, Torrpeddo leverages the powerful `libtorrent` suite to offer a seamless, high-performance experience that bridges the gap between complex network protocols and professional user interfaces.

Architectural Deep Dive

Torrpeddo follows a decoupled architectural pattern, separating the presentation layer from the core logic and network engine. This is achieved through three primary layers:

1. Frontend: Electron Framework

What is Electron?

Electron is an open-sourc
developers to build cross
HTML, CSS, and JavaSc
UI) and the Node.js runtir

Benefits for Torrpeddo:

- Visual Excellence: Le

components to create a "

2. The Bridge: IPC (Inter-Process Communication)

What is IPC?

IPC, or Inter-Process Co
processes to share data
IPC bridge to connect the

Implementation: Secure JSON-RPC

Communication is handle

Why this approach?

- Decoupling: The engi

touching the UI.

3. Backend Engine: Python & libtorrent

The Core: libtorrent with Python Bindings

At the heart of Torrpeddo
implementation. While th
C++, Torrpeddo utilizes t
seamless integration with

Multi-threaded Performance:

- Engine Level: The `lib
disk I/O, network polling,
of multiple torrent fragme

Development Process & Methodology

The Torrpeddo project followed a "Platform-First" methodology:

1. Language Choice: P
ease of integration with li
