

Executive Summary

penOCR is a comprehensive iOS application that bridges the analog-digital divide by transforming handwritten notes and captured text images into searchable, organizable and stored digital content using iOS Vision Framework. It solves the persistent problem of information loss and inaccessibility when notes are taken by hand, enabling users to maintain their preferred note-taking process while gaining the benefits of digital organization and searchability. In the App Store landscape, penOCR differentiates itself by focusing specifically on handwriting recognition with a complete workflow from capture to organization with robust document grouping capabilities, whereas competitors treat OCR as a secondary feature without proper document management. Technically, the app is built with SwiftUI and leverages Core Data for persistent storage, implementing AVFoundation for sophisticated camera controls, Vision framework for text recognition processing, and AVSpeech for text-to-speech capabilities. The app maintains all data locally on the device, with optional export functionality to services like Google Keep and universal sharing via iOS share sheet.