



MY PICTURE GALLERY

Event Photography Platform — Designed & Built From Scratch

mypicturegallery.com

Photography Industry • Web Platform + Android App + iOS App • AI-Powered • DSLR Integration • Modern Tech Stack

Platform Overview

My Picture Gallery is a professional event photography platform conceived, designed, and built entirely from scratch by our team using a modern, advanced technology stack. The platform serves two audiences simultaneously photographers who need a powerful, scalable system to upload, organise, and distribute event images, and guests who need a fast, frictionless way to find and download their own photos without any account registration.

We delivered the complete product across three platforms a web application, a native Android app, and a native iOS app engineering every layer from the ground up with current-generation frameworks, AI-powered face recognition, native DSLR camera integration, cloud-based image processing, automated quality control, and a secure payment system. No legacy technology was used at any layer of the stack.

What We Built

My Picture Gallery was built from the ground up across three fully integrated, production-ready platforms:

| PLATFORM | WHAT WE BUILT |
|--------------|---|
| Web Platform | A fully responsive, modern web application built on a current-generation frontend and backend stack enabling photographers to manage events, upload albums, configure sharing, and process payments, while guests browse, search, and download photos seamlessly. |
| Android App | A native Android application built with the latest mobile development frameworks featuring DSLR connectivity, batch image uploads, AI face recognition, QR scanning, and one-tap downloads, optimised for high-performance large file handling. |
| iOS App | A native iOS application built with current Apple development standards delivering custom DSLR-to-app image staging, AI face search, QR access, watermarking, and payment flows with a polished, modern user experience. |

Technical Challenges

Building this platform from scratch required us to architect and solve the following complex engineering problems:

| TECHNICAL CHALLENGE | HOW IT WAS SOLVED |
|--|---|
| Concurrent Multi-Photographer Uploads | Engineered an upload pipeline supporting simultaneous high-volume image ingestion across multiple photographers and events without performance degradation or data inconsistency. |
| Stateless Guest Access via Tokens | Implemented token-based gallery access via QR codes and direct links enabling full read and download permissions without session-based authentication or account creation. |
| Face Recognition at Scale | Integrated AI-powered face matching to index and query identities across large event galleries, returning personalised results in real time from thousands of images. |
| Automated Blink & Quality Detection | Deployed a computer vision pipeline to scan uploads for closed-eye frames and quality defects, flagging them automatically for single-tap photographer removal. |
| DSLR Integration & File Handling | iOS sandbox blocked direct USB file access from DSLR resolved via local staging before server upload. On Android, chunked multipart streaming handled stable 20MB+ file delivery. |
| Batch Upload & duplication | Concurrent multipart pipeline with adaptive chunk sizing handled 1,000+ image batches. Server-side perceptual hashing prevented duplicate uploads during retries. |
| Payment Gateway Integration | Secure payment pipeline across web and mobile with transaction lifecycle management, web hook verification, and failure recovery. |

Business Solution

Every feature was designed and built in-house to solve a specific real-world problem for photographers and event guests:

- **Event & Album Management:** Built a multi-photographer event and album management system supporting large-scale concurrent uploads and structured gallery organisation.
- **Frictionless QR Access:** Implemented token-based QR code and direct link access guests view and download photos instantly with zero sign-up friction.
- **Face Recognition Find Me:** Integrated AI face recognition allowing guests to find their own photos from thousands of event images in seconds.
- **AI Quality Control:** Deployed automated blink and quality detection to flag poor shots for one-tap removal saving photographers hours of manual curation.
- **Watermarking:** Built customisable watermarking to protect photographer IP and branding across all shared and downloaded images.
- **DSLR Integration:** Engineered native DSLR integration on both iOS and Android with custom file handling for 20MB+ images and 1,000+ batch uploads.

- **Payment Integration:** Integrated a secure cross-platform payment system for paid gallery access with full transaction lifecycle and failure recovery.

Implementation / Work Done

Web Platform

- Architected and built the complete web platform from scratch covering event management, album organisation, guest access, image downloads, watermarking, and payment processing.
- Engineered for large-scale concurrent performance supporting multiple photographers uploading high-volume galleries simultaneously without degradation.

Android Application

- Built a fully native Android application from scratch with complete feature parity to the web platform.
- Implemented native DSLR connectivity with chunked multipart streaming for stable 20MB+ uploads and server-side duplication for batch retry safety.

iOS Application

- Built a fully native iOS application from scratch delivering the complete platform experience on Apple devices.
- Engineered a custom local staging pipeline to overcome iOS USB access restrictions images transferred to app-scoped local storage before being streamed to the server.

Outcome

My Picture Gallery stands as a fully self-built, production-deployed product engineered on a modern, advanced technology stack and demonstrating our capability to conceive, architect, and ship a complex, AI-powered, multi-platform product entirely from scratch:

| | |
|--|---|
| ◆ Full Product Built From Scratch | Designed, architected, and delivered the complete My Picture Gallery ecosystem web, Android, and iOS entirely in-house from zero to production. |
| ◆ Seamless Event Management | Photographers manage unlimited events, albums, and large image galleries from one unified platform across all devices. |
| ◆ Frictionless Guest Access | Guests access and download their photos instantly via QR codes or direct links no account creation or login required. |
| ◆ AI-Powered Photo Discovery | Face recognition surfaces personalised photo results from thousands of event images in seconds. |

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| ◆ DSLR-to-Cloud Pipeline | Professional DSLR cameras connect directly to the app on both iOS and Android images flow from camera to cloud with no manual steps. |
| ◆ Secure Payment Integration | End-to-end payment processing for paid gallery access, built reliably across web and both mobile platforms. |
| ◆ Cross-Platform Delivery | A consistent, production-grade experience across web, native iOS, and native Android built and maintained as a single cohesive product. |