PROMOMEDIA
ADVERTISING AGENCY

TECHNOLOGY WHITEPAPER · PRECIOUS METALS & NUMISMATICS

Turning the Question “What’s It Worth?” Into Qualified Leads

How PromoMedia built AGDcoinscout for American Gold & Diamond — an AI web app that identifies a coin from a photo, estimates its grade and value, compares it to live melt value, and hands the store a qualified lead.



Client
American Gold & Diamond

Users
Coin owners, collectors, AGD staff

Core tech
AI vision + live spot prices

Live at
agdcoinscout.com

EXECUTIVE SUMMARY

An AI appraisal desk that works around the clock

Every coin and bullion dealer hears the same question dozens of times a day: “What is this coin worth?” Answering it ties up the most experienced people in the store, and most of those conversations never turn into a sale.

PromoMedia designed and built AGDcoinscout to answer that question in seconds — from any phone, at any hour. The customer snaps or uploads a photo of the front and back of a coin. The app identifies the coin, estimates its grade range with a confidence level, provides an indicative market value range, and compares it to the current melt value of the metal using live spot prices. The customer receives a clean report by email, and American Gold & Diamond receives a qualified lead with photos, contact information and the AI's findings attached.

Behind the public app sits a complete business system: a staff review queue, customer records, paid analysis packages through Stripe, revenue and cost reporting, and automated health monitoring — all protected by role-based access and database-level security rules.

> AGDcoinscout turns casual curiosity into a documented lead — and gives staff the photos and AI findings before the customer ever walks through the door.

THE BUSINESS PROBLEM

Expert time spent on questions that rarely close

Before AGDcoinscout, every valuation question went straight to a person. That was expensive, hard to scale, and left no record of the opportunity.

Pain point	What it was costing the business
Experts tied up at the counter	Senior staff spent hours on quick “what's this worth?” conversations instead of high-value purchases and sales.
Lost after-hours demand	People wondering about a coin at night or on a weekend had nowhere to go — and often went to a competitor's website instead.
No lead capture	Phone and walk-in questions left no name, photo or follow-up record, so most opportunities simply disappeared.
Melt value went unnoticed	Customers holding coins worth more as metal than as collectibles rarely knew it, so the store missed easy buying opportunities.
No visibility into demand	Management could not see how many people were asking, about which coins, or how many turned into revenue.

THE SOLUTION

A camera-first valuation app with a full business back office

AGDcoinscout combines AI image analysis, live precious-metals pricing, secure payments and staff tools in one system. The public experience feels like a scanner; the back office gives AGD control over every result, customer and dollar.

How it works

01 **Tell us about you and the coin**

The customer enters contact details and optional notes. Inputs are validated on the server before anything is processed.

02 **Snap or upload photos**

A mobile-first capture flow takes front and optional reverse photos. Images are compressed in the browser for fast upload, even on a cellular connection.

03 **AI identification and grading**

A server-side AI vision model (OpenAI GPT-4o) identifies the coin, estimates a grade band with a confidence indicator, and produces an indicative value range with a plain-English summary.

04 **Melt-value comparison**

Live spot prices for gold, silver, platinum and palladium from GoldAPI are combined with the coin's metal content to show what the metal alone is worth.

05 **Report delivered, lead created**

The customer sees the results on screen and receives an emailed report. The valuation, photos and contact details are saved for AGD staff.

06 **Staff review and follow-up**

Staff open the review queue, inspect photos and AI data, update the status, add review notes and reach out — or export the customer list for marketing.

Who uses it

Coin owners	Run free analyses, receive emailed reports, and buy additional analysis packages.
Collectors	Purchase credit packages and verify their email with a six-digit code to access their paid balance.
AGD administrators	Review and override AI results, manage customers and notes, control paid features, and view revenue, analytics and system health.

FUNCTIONALITY IN DEPTH

Everything needed to answer, sell and follow up

Each capability was designed around one goal: turn a valuation question into revenue for the store while keeping expert staff focused on high-value work.

CAPTURE

Snap-a-Photo Identification

A scanner-like experience built for one-handed phone use.

- Front and optional reverse photo capture
- Automatic image compression for fast upload
- Optional notes to sharpen accuracy
- Works on U.S. and world coins

INTELLIGENCE

AI Grading & Valuation

An appraisal-style report produced in seconds.

- Coin identification and history
- Grade band with confidence indicator
- Indicative market value range
- Clearly labeled as an estimate, not a certified appraisal

COMMODITY

Melt-Value Comparison

Shows when the metal is worth more than the coin.

- Live GoldAPI spot prices for four metals
- Automatic melt vs. collectible comparison
- Flags coins worth selling to a dealer
- Turns market awareness into store visits

REVENUE

Free Try + Paid Packages

A model that captures leads and funds itself.

- Five free analyses per customer
- Paid packages through Stripe Checkout
- Prices defined on the server, not the browser
- Purchase and receipt emails to customer and staff

OPERATIONS

Review Queue & Customer CRM

Staff stay in control of every result.

- Search, filter and status workflow for submissions
- Review notes, reviewer tracking and overrides
- Customer records with history, notes and blocking
- CSV export for follow-up marketing

INSIGHT

Finance, Analytics & Health

See the business behind the app.

- Revenue by package and period with cost tracking
- Traffic and conversion analytics
- Scheduled service-health checks with alert emails
- Server-side Meta conversion reporting for ad optimization

SECURITY & DATA PROTECTION

Protecting customers, payments and the business

AGDcoinscout handles customer contact information, coin photos and payments. Security is enforced at the database and server — not just by what the interface shows.

Staff identity
WHO ARE YOU?

- Administrators sign in through secure, managed authentication
- Paid-credit customers verify email ownership with a six-digit code before accessing balances

Roles
WHAT CAN YOU DO?

- Roles stored in a dedicated roles table, separate from user profiles
- Server-side security-definer role checks used by every database rule
- Finance and analytics services verify the caller is an administrator

Database access rules
WHAT CAN YOU SEE?

- Row Level Security on every table
- Valuations, customer profiles, costs and settings readable only by administrators
- Credit balances visible only to their owner or an administrator; only the server can write them

Payments
IS MY CARD SAFE?

- Card entry handled entirely by Stripe Checkout — card numbers never touch AGD's systems
- Stripe webhooks verified with a cryptographic signature before credits are issued
- Package prices defined server-side, and return URLs restricted

Server-side services
WHERE ARE THE KEYS?

- AI, metals pricing, email, Stripe and Meta keys kept on the server, never in the browser
- Strict input validation (Zod schemas) on analysis, contact and checkout requests
- Free-use throttling, safe HTML in emails, and upload rules limited to UUID-named images with listing disabled

Reliability
IS IT RUNNING?

- Scheduled service-health checks every 15 minutes across AI, pricing, email and payment providers
- Automatic alert emails to configurable staff recipients when something fails
- Credit balances updated with conflict protection so a credit cannot be spent twice

> Customers get a fast, friendly experience — and AGD gets a system where payments are verified, keys stay on the server, and customer data is visible only to authorized staff.

BUSINESS VALUE

Where AGDcoinscout pays for itself

The app creates value in three ways: it saves expert time, it creates revenue opportunities that did not exist before, and it gives management visibility into demand.

Value lever	How the platform delivers it
Expert time recovered	Routine valuation questions are answered by the app, so senior staff can focus on purchases, sales and high-value customers.
24/7 lead capture	Every analysis records a name, contact details, photos and AI findings — a qualified lead captured even when the store is closed.
New revenue stream	Paid analysis packages turn serious collectors into paying customers before they ever visit.
Buying opportunities surfaced	Melt-value comparisons show customers when to sell — and send them to AGD to do it.
Quality control	The review queue lets staff check, correct and improve AI results before following up.
Management visibility	Revenue, costs, analytics and system-health alerts give owners a real-time view of performance.

Technology foundation

React 18 + TypeScript · Vite · Tailwind CSS / Radix UI · Supabase Postgres + Row Level Security · Supabase Auth · Serverless Edge Functions · OpenAI GPT-4o vision · GoldAPI live spot prices · Stripe Checkout + signed webhooks · Resend email · Meta Conversions API · Recharts analytics

How PromoMedia delivered it

01 Discovery
We shadowed the AGD counter to learn which coin questions came up again and again and were eating expert time.

02 Design
We designed a mobile-first, camera-forward flow that feels more like a scanner than a form.

03 Build
We built the AI vision pipeline, live spot pricing, Stripe checkout, review console, finance dashboard and monitoring.

04 Launch & tune
We launched agdcoinscout.com, tracked the path from photo to paid report, and continue to refine results using real submissions.

COULD THIS WORK FOR YOU?

Have a question customers ask a hundred times a day?

If a camera and AI can answer it, the same approach can work for your business.

Jewelry, pawn & resale
Photo-based identification and estimates that turn browsers into in-store appointments.

Collectibles & antiques
Cards, watches, firearms, art or memorabilia triaged before an expert gets involved.

Insurance & claims
Photo intake with AI-assisted first review and a staff approval queue.

Service businesses
Photo-based quotes for repairs, roofing, auto body or equipment that capture the lead first.

Why businesses build with PromoMedia

- **Problem first, software second.** We start by studying how your team actually works — the counter, the phone calls, the spreadsheets — and only then design the tool.
- **Security built in, not bolted on.** Sign-in, roles, database-level access rules and server-side handling of keys and payments are part of every build from day one.
- **One local partner.** Strategy, design, development, launch, marketing and ongoing support from a single Tyler, Texas team that answers the phone.
- **Built to grow.** Platforms are designed to add features, users and locations without starting over.

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