

AI Features for Your Personal Dashboard

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What “AI-powered” Should Do

- Let users type or speak what they want. Example: “Plan my week, block deep work, and pay the bills due.”
- Turn vague goals into concrete actions across Tasks, Calendar, Finance, News, and Screentime.
- Explain decisions. Show “why” for priorities, schedules, and alerts.
- Stay fast. Stream answers and one-click apply changes.

High-Impact AI Features

Command Bar Copilot

- Global Cmd/K. Free text like “move overdue tasks to next week and sort by urgency.”
- The model calls functions: create/update tasks, schedule events, add budgets, save news, manage watchlist.
- Show a preview diff. Apply with one click.

Smart Prioritizer for Tasks

- Analyze due dates, effort, past completions, calendar availability.
- Output a Today/This Week plan and explain why.
- Buttons: “Accept,” “Tweak,” “Snooze.”

Auto-Planner for Calendar

- Input: goals and constraints. Example: “3 gym sessions, 2h deep work daily, one errand block.”
- Fills free slots, respects events and reminders.
- Offers alternates if conflicts exist.

Finance Coach

- Summarize spend vs budget. Flag anomalies. Suggest cuts.
- Natural queries: “What can I trim to save \$200 this month?”
- Predict end-of-month balance from income and recurring spend.

Screentime Coach

- Detect patterns. “You open social apps after 11 pm.”
- Offer actions: Focus mode windows, app limits, bedtime reminders.
- Weekly report with small steps to improve.

News & Stocks Brief

- Summarize today’s saved articles and watchlist moves.

- Ask follow-ups: “Do you want a 2-line brief or deep dive?”
- One-tap: save, share, set alert, or add a task.

Inbox-to-Action

- Paste text or notes. AI extracts tasks, events, reminders, and budget items.
- Confidence scoring. You approve before writing to the database.

Natural Language Queries

- “What must I finish before Friday?”
- “Find 2 free 90-min blocks this week.”
- “List subscriptions over \$20 I haven’t used lately.”
- “Summarize the 5 articles I saved today in 60 words.”

Minimal Data Additions

- ai_sessions(id, user_id, created_at, title)
- ai_messages(id, session_id, role, content, tool_calls, created_at)
- ai_search_index(id, user_id, source, source_id, chunk, embedding, created_at)
- Optional: pgvector for embeddings on tasks, events, saved news, notes.

Core Technical Approach (Next.js + Supabase)

Use function calling for safe actions, a copilot API that streams, retrieval-augmented answers over your data, and guardrails to keep control.

Function Calling Map (Server)

```
// /app/api/ai/actions.ts export const actions = { createTask: async (input) => {
/* write to tasks */ }, updateTask: async (input) => { /* ... */ }, scheduleEvent:
async (input) => { /* ... */ }, proposeSchedule: async (input) => { /* read events ->
plan */ }, analyzeBudget: async (input) => { /* read budgets/items */ },
suggestSavings: async (input) => { /* ... */ }, summarizeNews: async (input) => { /*
read news_saved */ }, screenTimeAdvice: async (input) => { /* read
screentime_sessions */ }, };
```

Copilot API Route

- Accept user prompt.
- Retrieve user context: tasks, upcoming events, budgets, watchlist, saved news.
- Call LLM with allowed tools. Stream tokens.
- Return a plan and preview actions. Do not auto-apply.

RAG for User Data

- Embed changed items nightly (or on write).
- Query embeddings to answer personal “what/when/why” questions.
- Store embeddings with RLS by user_id.

Guardrails

- Schema-validated tool inputs (zod).
- Read-only by default. Writes only after user confirms.
- Rate limits per user.

UI Wiring (Fast Wins)

- Add “Ask AI” to the Dashboard header.
- Copilot panel: prompt box, mic, live stream, action chips, Explain toggle.
- On Tasks and Calendar: “AI plan” button.
- On Finance: “Find savings” and “Forecast month.”

Example Prompts Users Can Try

- “Create a 5-step plan to finish my thesis by Oct 31. Schedule all steps.”
- “Re-prioritize my tasks for today. Keep meetings fixed.”
- “Where did I overspend last month? Suggest 3 concrete fixes.”
- “Summarize my saved news in 100 words and turn one insight into a task.”
- “Find a 30-minute slot for groceries before Thursday.”

MVP Slice (One-Week Build)

- Command Bar Copilot with two tools: `updateTask` and `scheduleEvent`.
- Context: top 20 tasks and next 7 days of events.
- Preview-and-apply flow.
- Basic “Explain” text.
- Logging to `ai_sessions` and `ai_messages`.

Later Upgrades

- Voice input and TTS replies.
- Personal goal models that learn routines.
- Auto-plans at 8:00 every morning with a preview banner.
- Multi-step tool use: “summarize news → create tasks → schedule time.”

Why This Fits Your App

Your tables already cover tasks, events, budgets, reminders, screentime, news, and stocks. The copilot orchestrates them with function calls and retrieval over your data while you stay in control.