

Guest Finder Agent

AI-Powered Podcast Guest Discovery

AI Today Live Podcast

Intelligent Guest Search & Management

What is the Guest Finder Agent?

Purpose:

Find potential Dutch AI podcast guests automatically

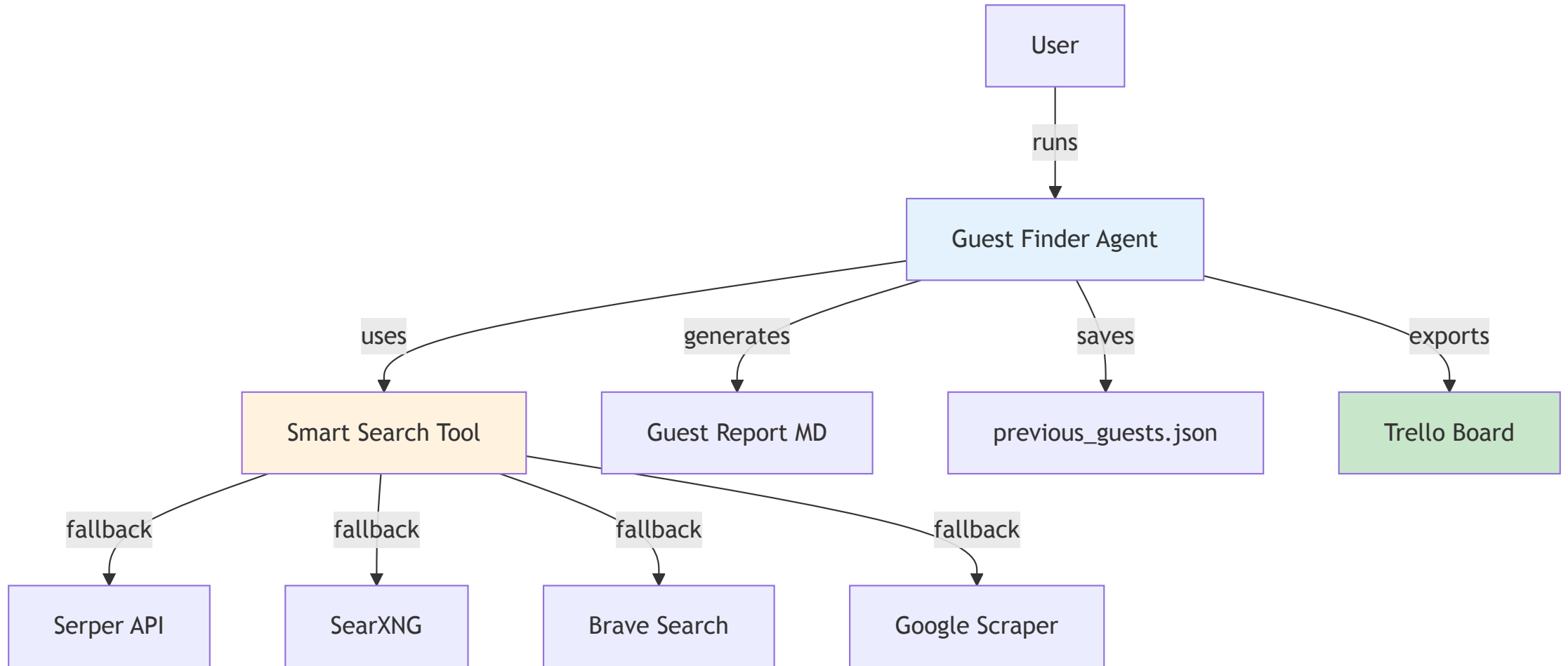
Powered by:

- Claude Sonnet 4 with extended thinking
- Multi-provider web search
- Smart deduplication system

Output:

- Curated guest list with context
- One-click Trello export
- Source verification

System Architecture



How It Works: 3 Phases

Phase 1: Planning 🧠

- Analyze current AI trends in NL
- Identify underrepresented sectors
- Create strategic search queries (8-12)
- Consider recent events

Phase 2: Search & Analysis 🔍

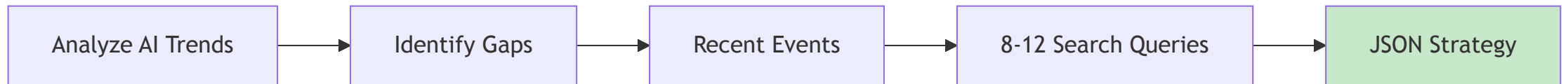
- Execute multi-provider search
- Fetch full page content
- Extract person names & roles
- Check deduplication

Phase 3: Report & Export 📋

- Generate markdown report
- Interactive selection I II

Phase 1: Strategic Planning

What the agent does:

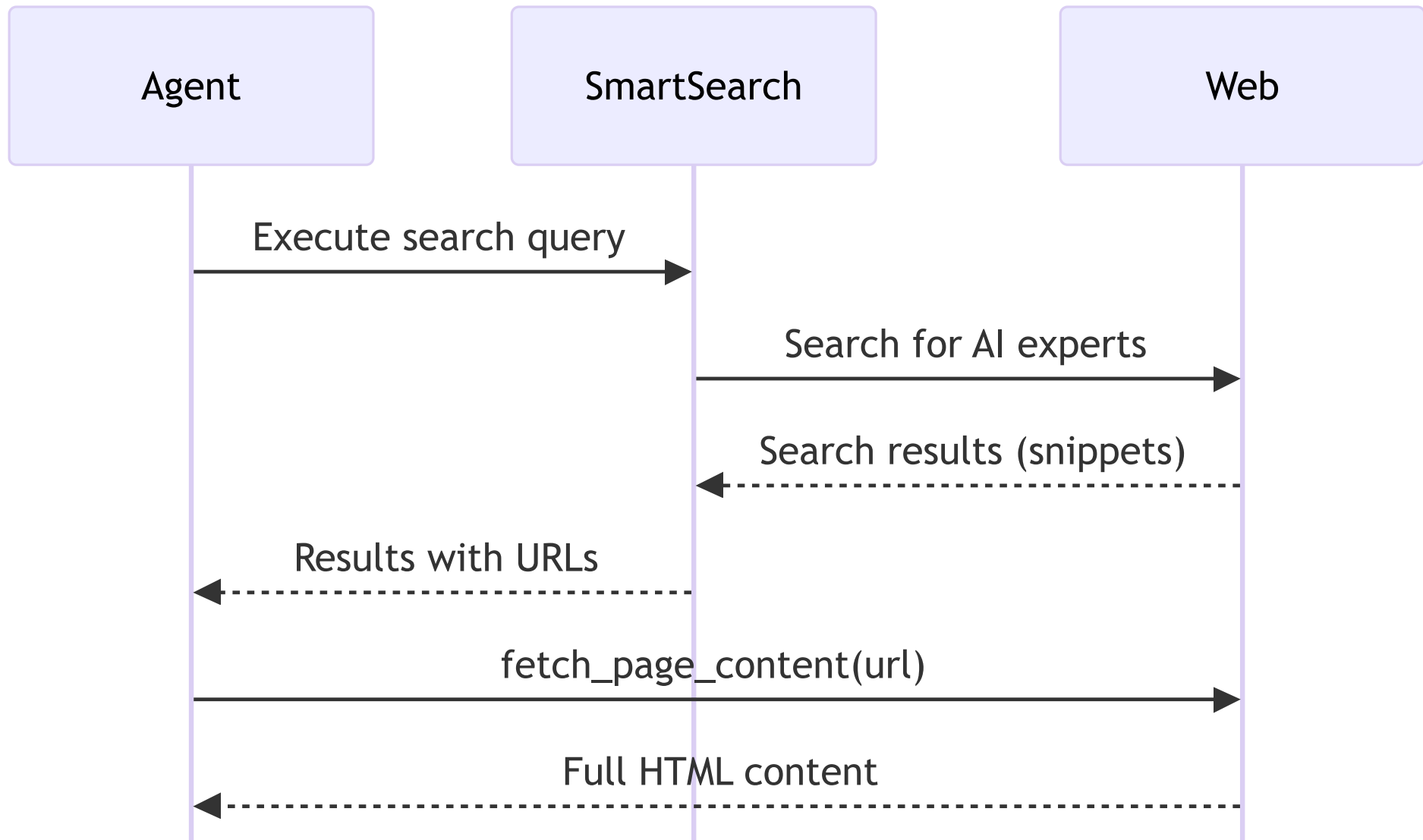


Example Queries:

- "AI healthcare startups Netherlands 2025"
- "Dutch AI ethics researchers universities"
- "Nederlandse AI consultancy founders"
- "AI Act implementatie Nederland experts"

Output: Prioritized JSON strategy with rationale

Phase 2: Search & Analysis



Smart Search Tool

Multi-Provider Fallback:

Primary:

1. Serper API

- Best quality
- 2,500/month free

Fallbacks:

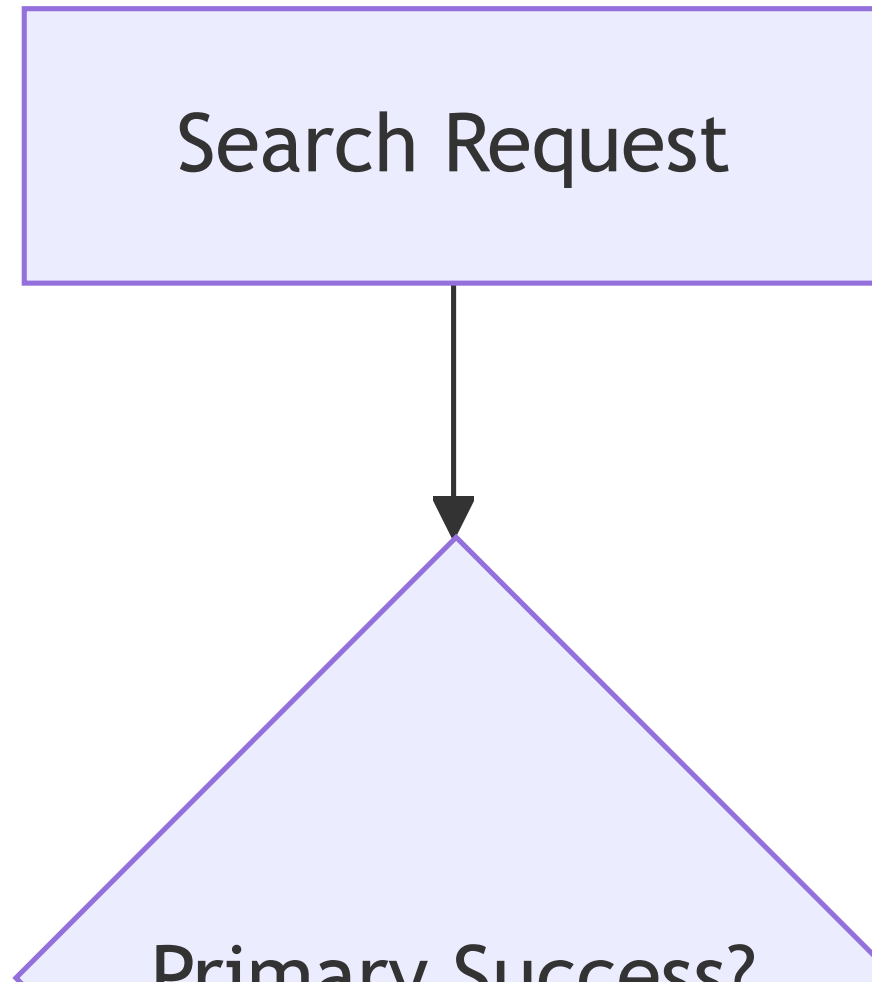
2. **SearXNG** - Free, no key

3. **Brave** - 2,000/month free

4. **Google Scraper** - Last resort

Smart Search Features

Intelligent Handling:







Deduplication System

Smart Guest Tracking:

```
{  
  "name": "Dr. Sarah Veldman",  
  "organization": "TNO",  
  "date_added": "2025-10-12",  
  "source_url": "https://tno.nl/...",  
  "why_now": "Published AI Act guide"  
}
```

Rules:

-  Won't recommend same guest within **12 weeks**
-  Tracks URLs to avoid duplicate sources
-  Stores context (why_now) for future reference
-  Manual override possible via JSON edit

Phase 3: Report Generation

Generates Markdown Report:

```
# AI Guest Recommendations – Week 41 2025

## Dr. Sarah Veldman
**Senior AI Advisor bij TNO**

**Waarom interessant:**
Specialist in AI Act implementatie...

**Mogelijke onderwerpen:**
– Praktische AI Act compliance
– EU AI regulering voor bedrijven





**Bronnen:**
– [AI Act Praktijkgids](https://tno.nl/...)
```

Includes:

• Role & organization

Interactive Selection UI

Features:

-  Rich terminal rendering
-  Full source URLs
-  Contact info display
- ✓ Duplicate warnings
-  Multi-select support

Commands:

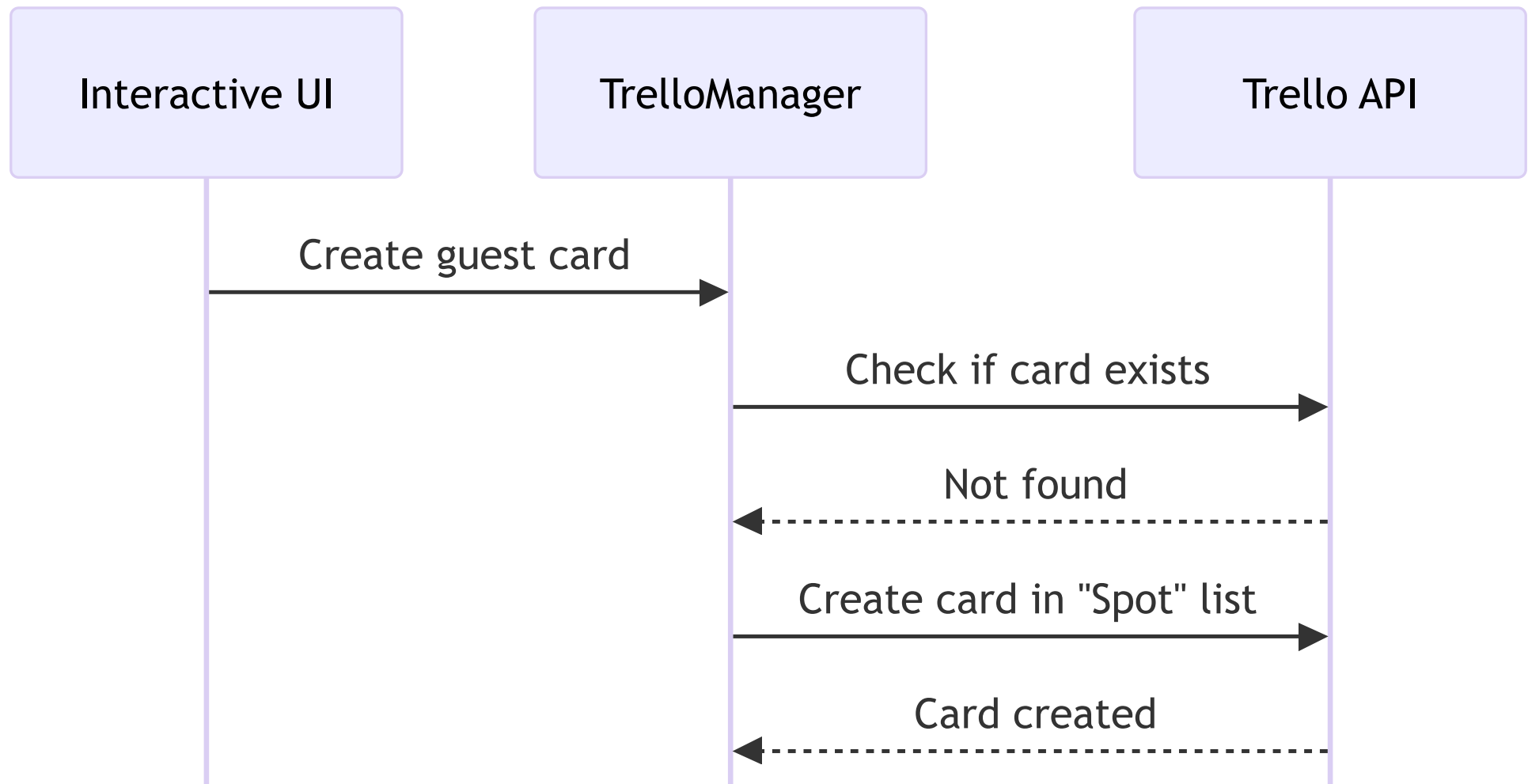
- Enter numbers: `1,3,5`
- Select all: `all`
- View in terminal first
- One-click Trello export

Workflow:

1. Review all candidates
2. Select by number
3. Export to Trello
4. Cards auto-created

Trello Integration

Direct API Implementation:



Trello Card Format

Auto-Generated:

****Senior AI Advisor bij TNO****

****Waarom interessant:**** Expert in AI Act implementatie, praktische ervaring NL.

****Context:**** Recent uitgebreide gids gepubliceerd over AI Act compliance.

****Onderwerpen:****

- AI Act compliance bedrijven
- EU AI regulering praktijk

****Contact:**** s.veldman@tno.nl
LinkedIn: [linkedin.com/in/sarahveldman](https://www.linkedin.com/in/sarahveldman)

****Bron:**** [\[AI Act Gids\]\(https://...\)](#) (12 oct)

Configuration

Environment Variables:

```
# Required
ANTHROPIC_API_KEY=key

# Recommended (≥1)
SERPER_API_KEY=key
BRAVE_API_KEY=key

# Optional
TRELLO_API_KEY=key
TRELLO_TOKEN=token
```

Settings:

- `TARGET_CANDIDATES` = 5
- `EXCLUDE_WEEKS` = 12
- `MAX_SEARCH_ITERATIONS` = 10

Trello (Optional):







- Connect to board
- Export to "Spot" list
- Duplicate detection

Usage

Complete Workflow:

```
python guest_search.py
```

What Happens:

1.  Planning Phase → Strategy summary
2.  Search Phase → Progress bar with candidate count
3.  Report Generation → MD file saved
4.  Optional: View report in terminal
5.  Interactive Selection → Browse & select guests
6.  Trello Export → Create cards in "Spot" list

Alternative Commands:

Output Files

Directory Structure:

```
output/  
├── reports/  
│   └── week_41_20251012.md      # Guest report  
  
data/  
├── previous_guests.json        # Deduplication DB  
└── candidates_latest.json     # Latest search results
```

Report Naming:

- Format: `week_{week}_{date}.md`
- Example: `week_41_20251012.md`
- Automatically dated
- Git-friendly markdown

Testing Coverage

166 Tests - All Passing 

Infrastructure:

- API integration (30)
- Search providers (35)
- File operations (25)
- JSON parsing (20)

More Infrastructure:

- Date logic (15)
- Configuration (10)

Integrations:

- Web scraping (18)

Performance & Costs

API Usage per Run:

Token Breakdown:

- Planning: ~1,000 tokens
- Search: ~20,000 tokens
 - 8-12 search queries
 - Page content fetching
- Report: ~5,000 tokens

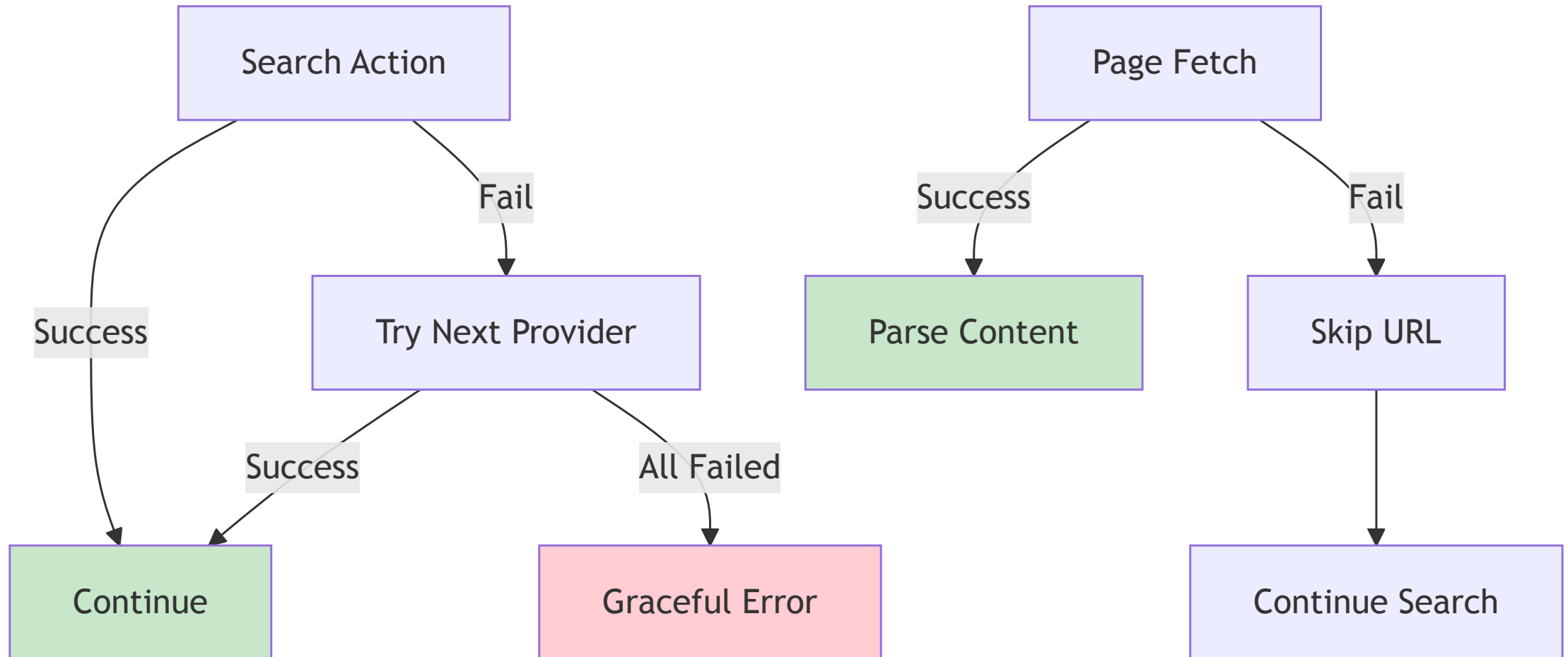
Total: ~26,000 tokens/run

Estimated Costs:

- Claude Sonnet 4: ~\$0.40/run
- Search APIs: Free tier sufficient
- **Total: ~\$0.40 per guest search**

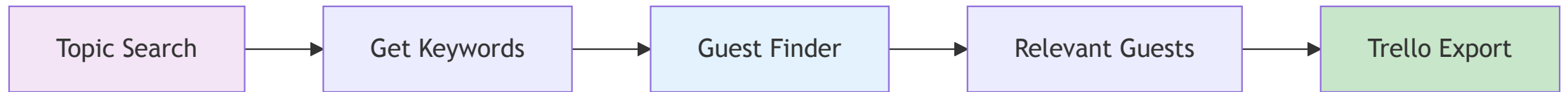
Error Handling

Robust Fallback System:



Integration with Topics

Workflow: Topics → Guests



Example Flow:

1. Topic: "RAG implementation in healthcare"
2. Keywords: "RAG, retrieval augmented generation, healthcare AI"
3. Guest Search: Finds Dutch consultants implementing RAG
4. Export: Relevant guests to Trello




Result: Topic-aligned guest recommendations

Best Practices

Recommended Workflow:

1. **Morning:** Run topic search (separate tool)
2. **Review:** Check topics and extract keywords
3. **Search:** Run guest finder with topic keywords
4. **Select:** Use interactive UI to review candidates
5. **Export:** Send selected guests to Trello
6. **Weekly:** Clean up Trello board (Spot → Contacted)

Tips:

-  Verify URLs before outreach
-  Update previous_guests.json manually if needed
-  Keep API keys secure in .env

Tech Stack

Core Technologies:

- Python 3.10+
- Anthropic Claude Sonnet 4
- Rich (Terminal UI)
- BeautifulSoup4 (HTML parsing)
- Requests (HTTP client)

Search Providers:

- Serper API
- SearXNG
- Brave Search API
- Google Scraper (fallback)

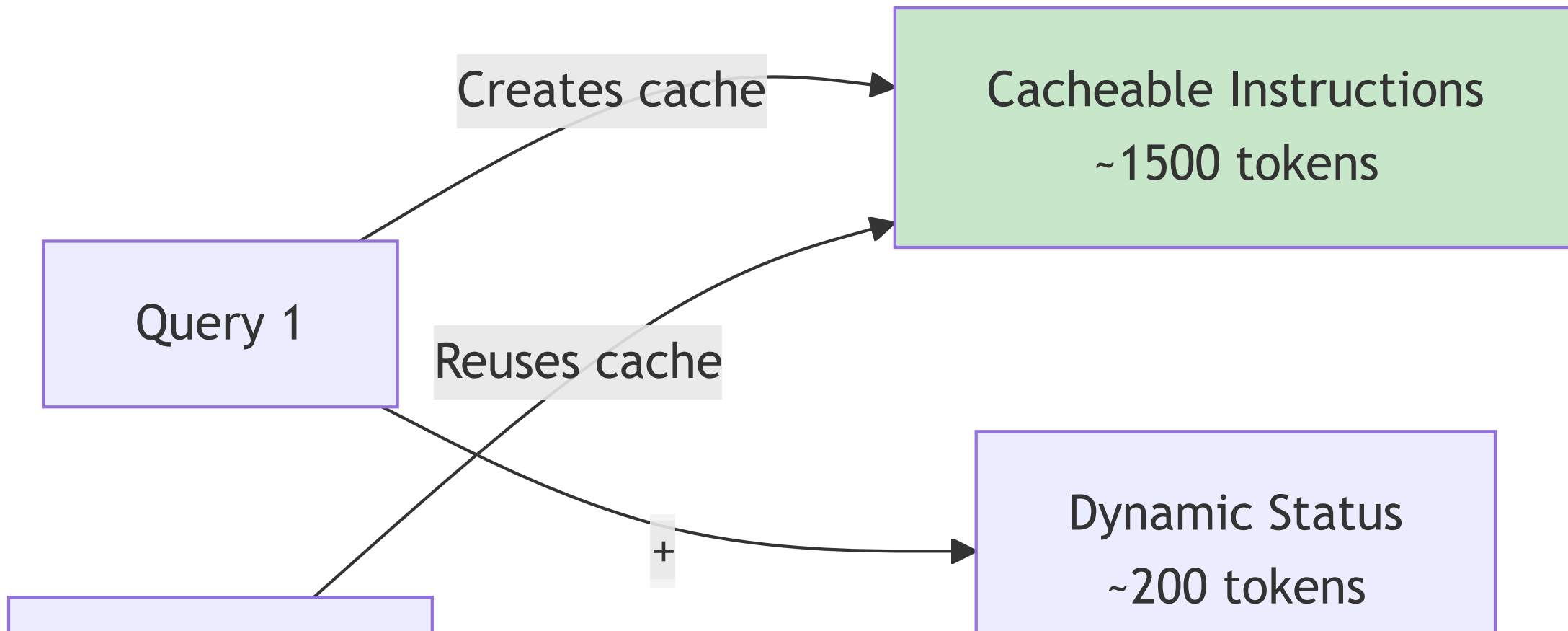
Testing:

- Pytest (166 tests)
- Unittest.mock

💰 Prompt Caching: Cost Optimization











Problem: Search phase repeats same ~1500 token instructions 8-12x

Solution: Anthropic prompt caching with split prompts



Key Features Summary





What Makes It Special:

-  **AI-powered strategic planning** - Not just keyword search
-  **Prompt caching** - 70-80% cost reduction via Anthropic caching
-  **Multi-provider fallback** - Never fails due to rate limits
-  **Automatic name extraction** - Regex-based person detection
-  **Multi-turn conversations** - Proper tool call sequences
-  **Smart deduplication** - 12-week guest tracking
-  **Beautiful terminal UI** - Professional & user-friendly
-  **One-click Trello export** - Seamless workflow
-  **Comprehensive testing** - 192 tests, all passing
-  **Cost-effective** - ~\$0.01 per search (with caching)





Future Enhancements

Potential Features:

Integration:

-  LinkedIn profile search
-  Email finder integration
-  Automated outreach drafts
-  Slack/Discord notifications

Intelligence:







-  Analytics dashboard
-  Weekly scheduled runs
-  Custom search profiles
-  Multi-language support

Contributions welcome!

Repository: https://github.com/Joopsniider/quest_search

Documentation

Available Resources:

-  [README.md](#) - Quick start & overview
-  [USAGE.md](#) - Complete usage guide
-  [RATE_LIMIT_HANDLING.md](#) - Search details
-  [TRELLO_SETUP.md](#) - Trello configuration
-  [TEST_COVERAGE_SUMMARY.md](#) - Test details
-  [architecture.md](#) - Arc42 documentation

All docs: Maintained and up-to-date

Demo Time!

Let's see the Guest Finder in action:

1. Strategic Planning Phase
2. Multi-Provider Search
3. Report Generation
4. Interactive Selection UI
5. Trello Export

Questions?

Repository: https://github.com/Joopsnijder/guest_search

License: MIT

Built with: [Claude Code](#) by Anthropic

Thank You! 🎉

Happy Guest Hunting! 🔍 🎤