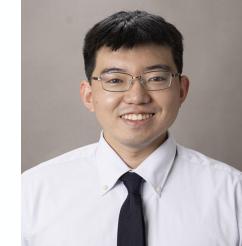


Restaurant AI

<https://github.com/IS492-SP26/Restaurants-AI/tree/main>



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Problem & Motivation

*Starting a restaurant or local business is **overwhelming for first-time entrepreneurs**. They must **navigate** market validation, financial planning, compliance, and operational risks — often **without structured guidance**. And risk leading many **founders to underestimate risks and make costly mistakes**.*

Why?

Interest in local entrepreneurship is growing, but businesses like restaurants remain high-risk and highly regulated. At the same time, AI can now integrate market analysis, financial modeling, and compliance evaluation into one intelligent decision-support system — reducing preventable failure and lowering the barrier to entry.

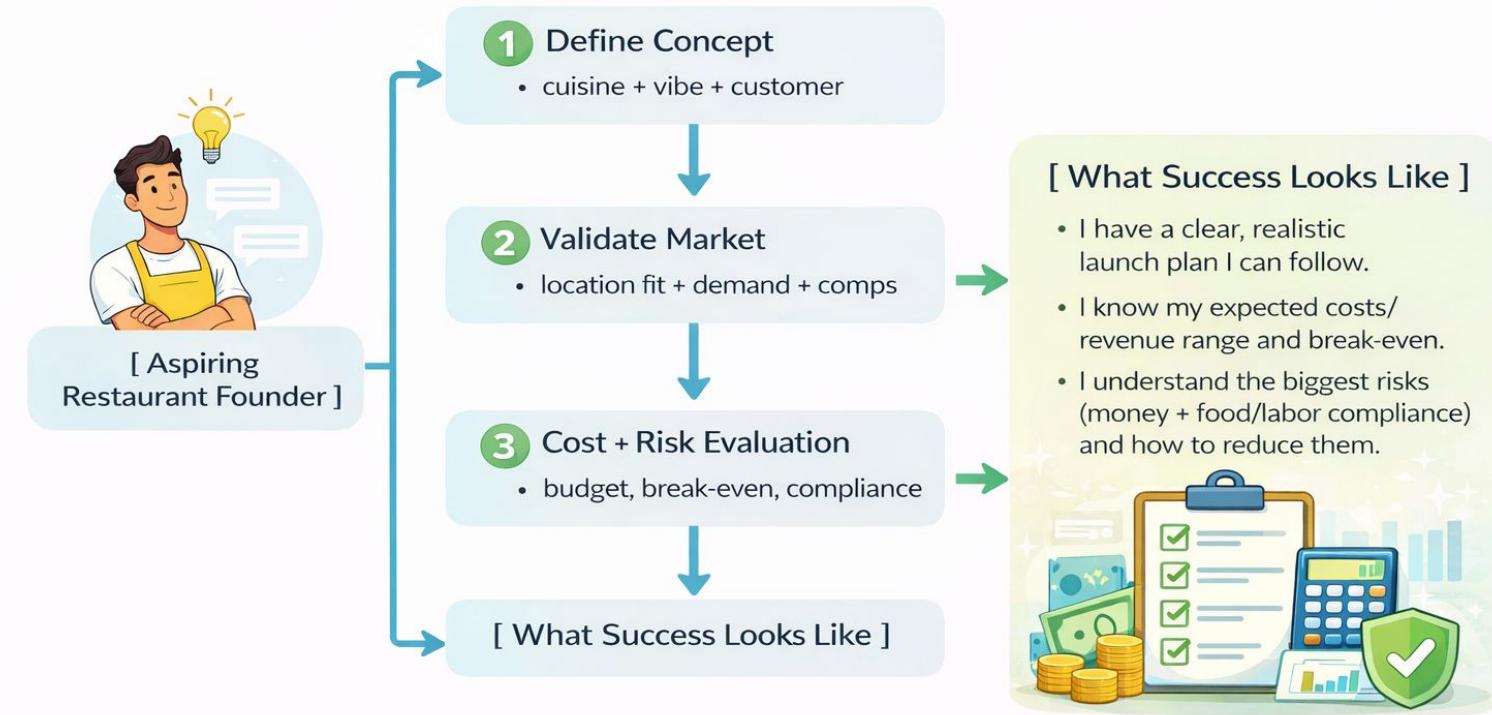


Target User

- ✓ First-time entrepreneurs
- ✓ Students, and career switchers starting small businesses.
- ✓ Passion-driven founders (chefs, home cooks) without formal business training.
- ✓ Passionate Individuals without access to consultants, lawyers, or startup capital



User Case Study and Success



Key Insights (Literature Review)

8 papers reviewed

Major Findings:

- AI can be leveraged for entrepreneurial and strategic decision making
- AI can be a democratizing force and open new business opportunity (especially first time founders)
- Multi-agent architectures for complex business tasks



Existing tools and Gaps

AI Cofounder — Startup Planning Guidance

What it Produces

Step-by-step research tasks and startup planning phases

Market research checklist (competition, student behavior, cost structure)

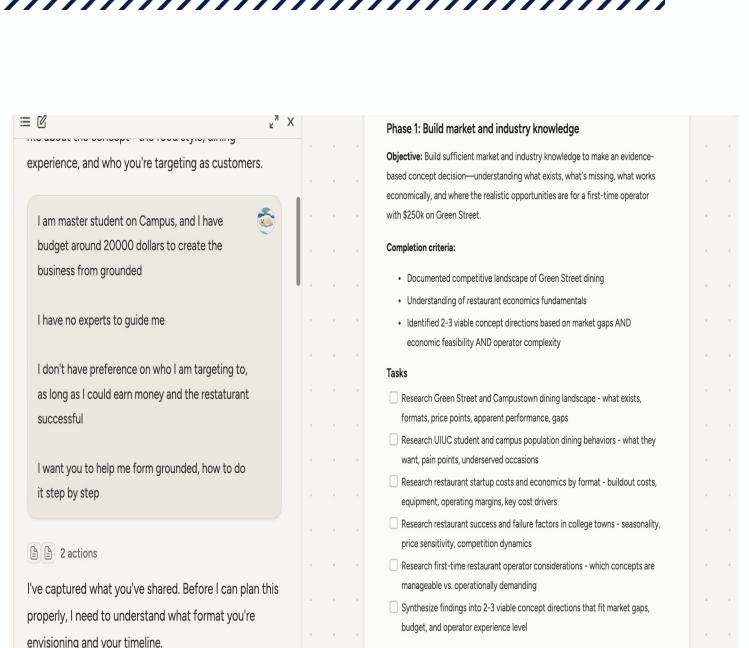
Concept evaluation workflow

Example:

Requires user to research Green Street dining landscape

Requires manual research of UIUC student behavior

Requires manual cost and concept feasibility analysis



The screenshot shows a computer interface for 'AI Cofounder — Startup Planning Guidance'. On the left, a conversation window displays a user's message: 'I am master student on Campus, and I have budget around 20000 dollars to create the business from grounded'. The AI's response is: 'I have no experts to guide me'. The user then asks, 'I don't have preference on who I am targeting to, as long as I could earn money and the resturant successful'. The AI replies, 'I want you to help me form grounded, how to do it step by step'. Below the conversation, there are '2 actions' listed: 'I've captured what you've shared. Before I can plan this properly, I need to understand what format you're envisioning and your timeline.' On the right side of the interface, there is a sidebar with the following sections:

- Phase 1: Build market and industry knowledge**
 - Objective:** Build sufficient market and industry knowledge to make an evidence-based concept decision—understanding what exists, what's missing, what works economically, and where the realistic opportunities are for a first-time operator with \$250k on Green Street.
 - Completion criteria:**
 - Documented competitive landscape of Green Street dining
 - Understanding of restaurant economics fundamentals
 - Identified 2-3 viable concept directions based on market gaps AND economic feasibility AND operator complexity
 - Tasks**
 - Research Green Street and Campustown dining landscape - what exists, formats, price points, apparent performance, gaps
 - Research UIUC student and campus population dining behaviors - what they want, pain points, underserved occasions
 - Research restaurant startup costs and economics by format - buildout costs, equipment, operating margins, key cost drivers
 - Research restaurant success and failure factors in college towns - seasonality, price sensitivity, competition dynamics
 - Research first-time restaurant operator considerations - which concepts are manageable vs. operationally demanding
 - Synthesize findings into 2-3 viable concept directions that fit market gaps, budget, and operator experience level

Our Output using AI Cofounder



Existing tools and Gaps

Canva AI Business Plan Generator — Documentation Generator

What it Produces

Step-by-step startup guide
Business plan structure
Budget allocation categories
Permit and licensing checklist

Example :

Recommends market research and competitor observation
Provides cost categories (rent, permits, equipment, staffing)
Provides high-level launch steps



Opening a Restaurant on Green Street, Champaign

Starting a restaurant is an exciting endeavor, and with a budget of \$250,000, you're in a great position to begin. Here's a step-by-step guide to help you launch your restaurant from the ground up.

Step 1: Research and Concept Development

1. **Market Research:**
 - o Investigate the local market on Green Street to understand the competition and identify any gaps.
 - o Visit existing restaurants to observe their offerings, pricing, and customer demographics.
2. **Define Your Concept:**
 - o Decide on the type of cuisine and dining experience you want to offer. Consider trends and what might appeal to students and residents in Champaign.
 - o Think about your restaurant's theme and atmosphere.

Step 2: Planning and Budgeting

1. **Business Plan:**
 - o Create a detailed business plan outlining your concept, target market, marketing strategy, and financial projections.
 - o Include a SWOT analysis (Strengths, Weaknesses, Opportunities, Threats).
2. **Budget Allocation:**
 - o **Rent and Utilities:** Research rental prices on Green Street and allocate funds for at least the first six months.
 - o **Licensing and Permits:** Set aside funds for necessary permits and licenses.
 - o **Interior Design and Equipment:** Allocate a portion of your budget for furniture, kitchen equipment, and décor.
 - o **Staffing:** Plan for hiring and training costs.

Step 3: Legal and Administrative Requirements

1. **Legal Structure:**
 - o Decide on a legal structure for your business (LLC, sole proprietorship, etc.).

Our Output using Canvas AI Business



Existing tools and Gaps

PrometAI — Investor-Facing Business Planning Tool

What it Produces

Financial narrative

TAM / SAM / SOM analysis

Funding slides

Valuation presentation



Test Output using PrometAI



Initial Concepts & Value Proposition



What are you proposing to build?

- An AI “restaurant co-founder” that turns an idea into a launch plan + risk checklist



Not just advice — it evaluates feasibility

and flags risks (finance + food labor compliance) with next steps



What unique value can GenAI bring (not decorative)?

- It personalizes a full plan from minimal inputs and explains complex rules/risks in plain language

Milestones and Next step (CP2)

Next Milestones for CP2

- Interviewers with target users
- More detailed evaluation of existing tools (UX, backend analysis) -> Detailed gap analysis, or UX inspiration
- Ideation prompting using LLMs

Potential Risks (as of now)

- Access to target users
- Potential scale back on ambitious design

