



Finance Bro

Revolutionizing Investment Banking *Interview Prep*

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AI and Financial Statement Analysis
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The Problem

- Investment banking (IB) interview prep is **time-consuming** and **overwhelming**
- Existing study guides assume prior knowledge and lack interactive guidance
- Interviewees struggle with **technical finance concepts**, market trends, and case-based questions
- **Optimizing prep time** and leaving a strong impression are key to a successful recruitment

Our Solution

- An **AI-powered interview coach** that provides structured, interactive, and adaptive finance training
- Answers technical finance questions with clarity and accuracy
- Provides guidance on industry and market trends



Target Audience

- Primary audience: Students and job seekers prepare for **Investment Banking (IB) interviews**, especially in **junior roles** (Analyst / Associate)
- Also suited for applicants in PE, Growth Equity, Corp Dev roles
- Finance students and general audience looking for technical finance AI tutoring can also benefit from the tool

Key Features

- Step-by-step financial modeling explanations
- Context-aware follow-up responses
- Access to real-world SEC filings and deal insights
- Multilingual support



Investment Banking Prep Areas



1. Technical Questions

- Accounting
- Equity Value to Enterprise Value
- Valuation, DCF
- Merger Models
- LBOs

2. Market Trends

- Recent M&A
- Strategic rationale
- Accretive / Dilutive
- Comparable transactions

3. Behavioral Questions

- Why Banking?
- Why this coverage / product?
- Tell me about yourself
- Leadership questions
- General aptitude and cultural fit



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Will help you here!



Technical Components:

1. **Vector database:** Chroma for containing embedded documents: proprietary interview guides, technical information, and 10-k company data
2. **LLM:** GPT-4o-mini for response generation
3. **Financial data:** Polygon.io API
4. **Web search:** Brave Search API
5. **Agent framework:** LangGraph



Usage Instructions:



1. **Basic Query:** Ask any investment banking interview question
2. **Experience Level:** Include terms like 'beginner' or 'experienced' to tailor responses
3. **Bro Mode:** Include 'bro' to activate the finance bro personality
4. **Company-Specific:** Include company names or tickers for company-specific information



Live Demonstration: Finance Bro

1. I'm a **beginner** in finance. Could you explain how to calculate WACC (Weighted Average Cost of Capital) and show me the formula broken down into **simple** steps?
2. As an **experienced** 2Y MBA candidate, What are the current trends in the EV industry, specifically **Tesla's valuation** compared to traditional automakers? How has this changed over the past year?
3. Hey **bro**, how do I absolutely crush a technical question about accretion/dilution analysis in my Goldman interview? **Need to sound like a total beast.**



Limitations:

1. Financial data limited to publicly traded companies
2. Knowledge cutoff based on training data and documents provided
3. May occasionally generate incorrect technical information
4. Response quality depends on retrieval accuracy
5. Not well-suited for behavioral interview preparation



Future Improvements:

1. Web-based UI
2. Integration with more financial data sources
3. Mock interview mode
4. Support for audio input/output for practice on-the-go
5. User feedback collection for continuous improvement

a. **Future Product:**

- i. **Jolene:** Turn Your *MRS* degree into a **MBA**



Q&A

Thank you!

Evaluation

Performance Metrics

- Developed a comprehensive evaluation framework using 50 “Gold Standard” questions and responses.
- For each question, measured key performance metrics including:
 - response time, word count, and the inclusion of examples and formulas.
- Tested robustness through edge case scenarios including:
 - empty queries, extremely brief questions, non-finance topics, unusually long inputs, special characters, and non-English queries

These evaluation metrics confirm Finance Bro AI delivers investment banking interview preparation that balances technical accuracy with personalized coaching across experience levels and question types

- A substantial word count (425) reflecting comprehensive explanations of financial concepts
- A responsive interaction time (5.2 seconds) balancing speed and thoughtfulness
- A high percentage (80%) of responses containing practical examples and formulas, particularly for technical questions

Core Professional Prompt

```
CORE_PROFESSIONAL_PROMPT = """
```

```
You are Finance Bro, an expert investment banking interview coach with extensive experience in preparing candidates for roles at bulge bracket and elite boutique banks. Your knowledge spans technical topics including valuation methodologies, M&A analysis, LBO modeling, accounting concepts, and industry-specific questions.
```

```
For company-specific questions, you can provide historical stock data and company information, but not real-time stock prices. When discussing stock prices, make it clear that you're providing recent historical data, not current market prices.
```

```
You provide accurate, technically precise information while maintaining a supportive coaching approach. Your guidance is based on real interview experiences and industry best practices."""
```

Junior Candidate

```
JUNIOR_CANDIDATE_ADDON = """
```

```
Recognize that you're working with an entry-level or undergraduate  
candidate. Break down complex concepts into digestible components,  
avoid assuming prior knowledge, provide fundamental examples, and  
explain industry terminology. Focus on basic valuation concepts,  
financial statement structure, and entry-level technical questions.  
Use an encouraging, educational tone.
```

```
"""
```

Experienced Candidate

```
EXPERIENCED_CANDIDATE_ADDON = """
```

```
Recognize that you're working with an experienced candidate (MBA,  
lateral hire, or someone with prior finance experience). Elevate your  
technical depth with advanced modeling techniques, nuanced  
transaction analysis, and complex valuation methodologies. Reference  
specific deal types and industry-specific considerations. Expect  
higher technical proficiency and use a more collegial tone.
```

```
"""
```

Bro Mode

```
BRO_MODE_PROMPT = """
```

```
ACTIVATE BRO MODE: You are now in "Bro mode" - still an expert  
investment banking coach but with the personality of a stereotypical  
Wall Street finance bro. Use casual language, industry jargon, and  
references to finance culture (Patagonia vests, client dinners, deal  
all-nighters). Include phrases like "crushing it," "absolute beast  
mode," and references to "the Street." Keep your technical  
information 100% accurate but deliver it with finance bro flair.
```

```
"""
```