## The Context

FirstMark's network includes:

- Portfolio company executives
- Members of FirstMark Guilds (role-based peer groups: CTO, CPO, CRO, etc.)
- Broader professional networks (LinkedIn, founders, event attendees)

We want to identify which executives in this extended network could be strong candidates for open roles in our portfolio companies — and surface those insights automatically.

## The Challenge

You are designing an AI-powered agent that helps a VC talent team proactively surface *executive matches* for open roles across the portfolio.

Build and demonstrate (conceptually and technically) how this "Talent Signal Agent" could:

1. Integrate data from **structured** (e.g., company + role data, hiring needs) and **unstructured** (e.g., bios, articles, LinkedIn text) sources.
2. Identify and rank potential candidates for given open CTO and CFO roles.
3. Provide a clear *reasoning trail* or explanation for its matches.

Create and use **mock data** (CSV, sample bios, job descriptions, etc.), **public data**, or **synthetic examples** to create your structured and unstructured inputs. The goal is to demonstrate reasoning, architecture, and usability — not data volume. Aka should be enough individual CFO/CTO entries to show the how. This exercise mirrors the real data and decision challenges we face. We don't need a perfect working prototype nor perfect data — we want to see how you think, structure, and communicate a solution

## The Data Inputs

| Type | Example | Description |
|---|---|---|
| Structured data | "Mock_Guilds.csv" of mock data of two FIrstMark Guilds | Columns: company, role title, location, seniority, function. |

| | | |
|---|---|---|
| Structured data | “Exec_Network.csv”, could be an example of a Partner’s connections to fill out additional potential candidates | Columns: name, current title, company, role type (CTO, CRO, etc.), location, LinkedIn URL. |
| Unstructured data | Executive bios or press snippets | ~10–20 bios (mock or real) in text format. |
| Unstructured data | Job descriptions | Text of 3–5 open portfolio roles for CFO and CTO. |

**The Deliverables**

The candidate should provide:

1. **A short write-up or slide deck (1–2 pages):**
    - Overview of problem framing and agent design
    - Description of data sources and architecture
    - Key design decisions and tradeoffs
    - How they’d extend this in production

2. **A lightweight prototype (Python / LangChain / LlamaIndex / etc or other relevant tools/workspaces that facilitate agent creation.):**
    - Demonstrate how the agent:
        - Ingests mock structured + unstructured data
        - Identifies potential matches
        - Outputs ranked recommendations with reasoning (e.g., “Jane Doe → strong fit for CFO @ AcmeCo because of prior Series B fundraising experience at consumer startup”)

3. **A brief README or Loom video (optional)**
    - Explain what’s implemented and what’s conceptual.

**The Evaluation Rubric**

| Category | Weight | What “Excellent” Looks Like |
|---|---|---|
| **Product Thinking** | 25% | Clear understanding of VC and talent workflows. Scopes an agent that actually fits how the firm works. Communicates assumptions and value. |
| **Technical Design** | 25% | Uses modern LLM/agent frameworks logically; modular design; thoughtful about retrieval, context, and prompting. |
| **Data Integration** | 20% | Handles structured + unstructured data elegantly (e.g., vector store, metadata joins). Sensible about what’s automatable. |
| **Insight Generation** | 20% | Produces useful, explainable, ranked outputs — not just text dumps. Demonstrates reasoning or scoring logic. |
| **Communication & Clarity** | 10% | Clean, clear explanation of what was done, why, and next steps. No jargon for the sake of it. |