Project name: QuantumTalent AI Market Analytics
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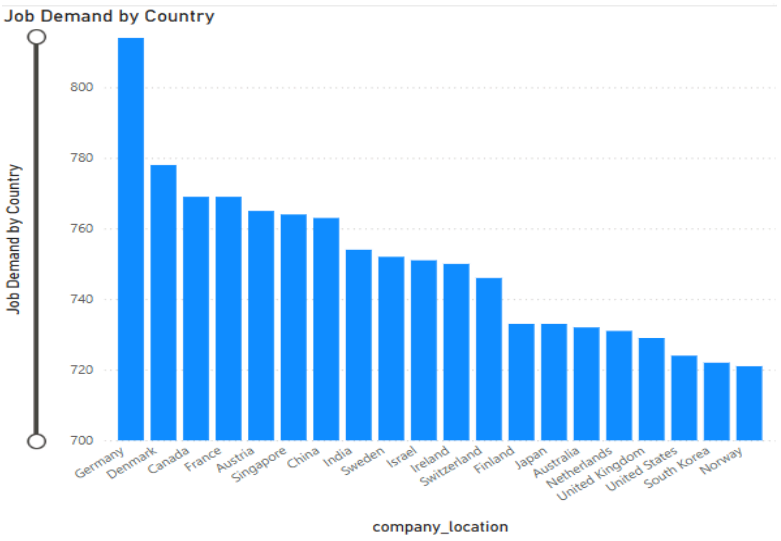
I. Executive summary

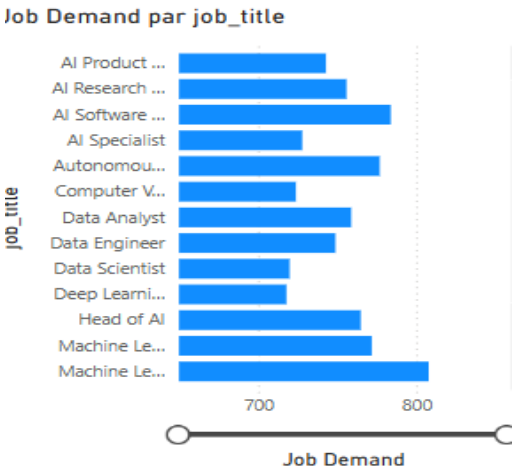
Objective:
This report analyzes AI job market trends, including role demand, required skills, salary distributions, and remote work patterns across countries and industries. The findings provide actionable insights for talent acquisition, workforce planning, and strategic hiring decisions

II. Analytical section

Q1: Most In-Demand AI Job Roles Across Countries

Visualization:





Insights:

→ **Europe dominates AI hiring:** Most of the top countries are European (Germany, Denmark, France, Austria,Sweden, Ireland, Switzerland, Finland, Netherlands, UK, Norway), likely driven by:

- Digital transformation
- Strong regulation

- investment in AI infrastructure

→ **Germany is the global leader in AI job demand**

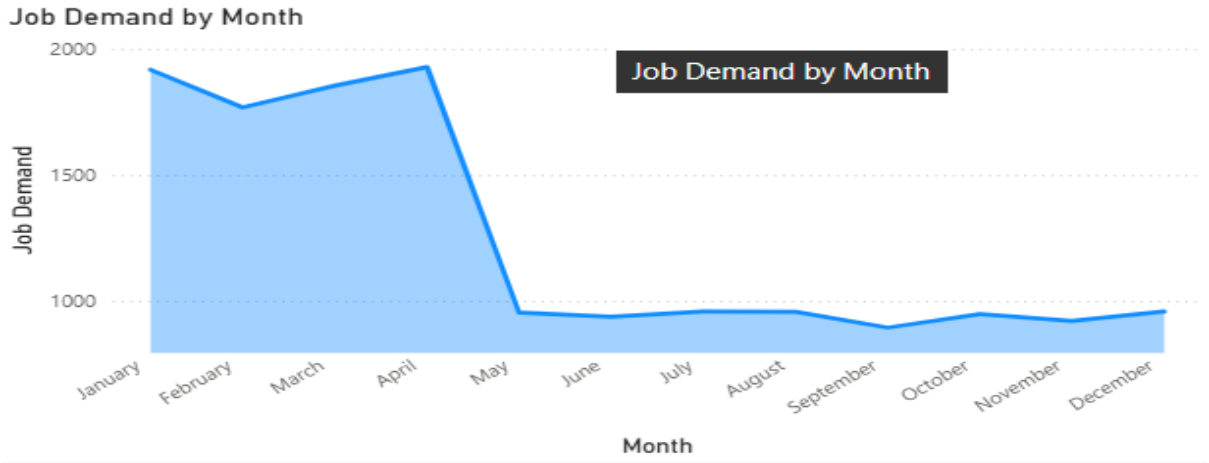
Actionable Recommendation:

→ **Focus recruitment in high-demand countries:** Open hiring hubs or partnerships in these regions and attend tech events and collaborate with universities there

→ **Upskill internal teams instead of only hiring externally** Since high-demand roles are expensive and competitive internal upskilling can reduce cost and dependency on the external market.

Q2:How has demand for AI jobs evolved over time?

Visualization:



Insights:

Annual job demand peaks in first semester : Job demand starts moderately high in January, dips in February and March, then rises significantly from April through July (peaking around June–July)

. After July, demand declines through August to October, followed by a slight uptick in November and December, but not as high as the mid-year peak.

Actionable Recommendation:

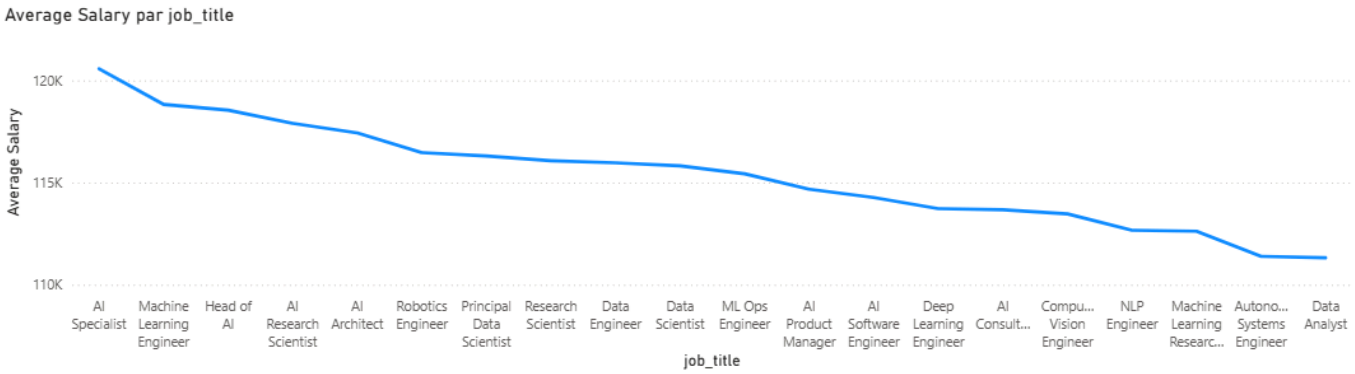
Maximize hiring in Q2–Q3 (April–July) This is the peak hiring season according to the data. Plan recruitment campaigns, job fairs, and onboarding processes during this period to attract top talent when competition is high and candidate availability may be better.

Anticipate Q4 slowdown (Aug–Oct) Hiring needs drop post-July: Focus on internal development, succession planning, and analyzing hiring outcomes from the peak period.

Forecast & Budget Accordingly Align recruitment budget and team capacity with the demand trend:
High investment in Q2–Q3
Maintenance mode in Q4
Planning phase in Q1

Q3:What is the average salary for different AI roles?

Visualization:



Insights:

→ **Specialization increases salary:** Roles that are highly specialized (AI Specialist, ML Engineer, AI Architect), hard to replace and require advanced math, ML, or system design earn the most**.**

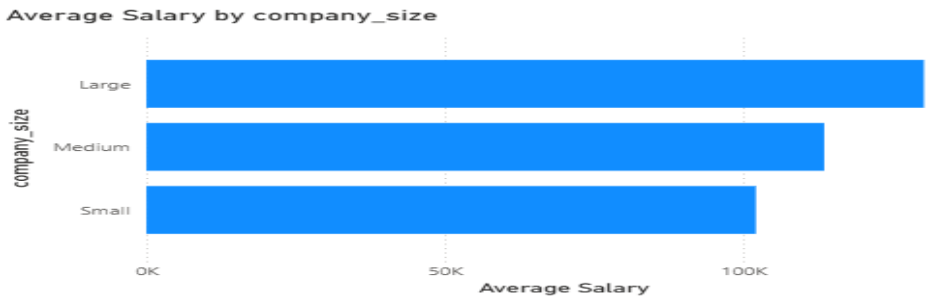
→ **Engineering > analytics for pay:** Engineering-heavy roles (ML engineer, robotics engineer, AI architect) earn more than data analysts and standard Data Scientist
→ **Salary range is narrow but consistent:** All roles are between roughly **$111K–$121K**:AI jobs are consistently high-paying. Although differences exist, there is no “low-paid” AI role according to our dataset

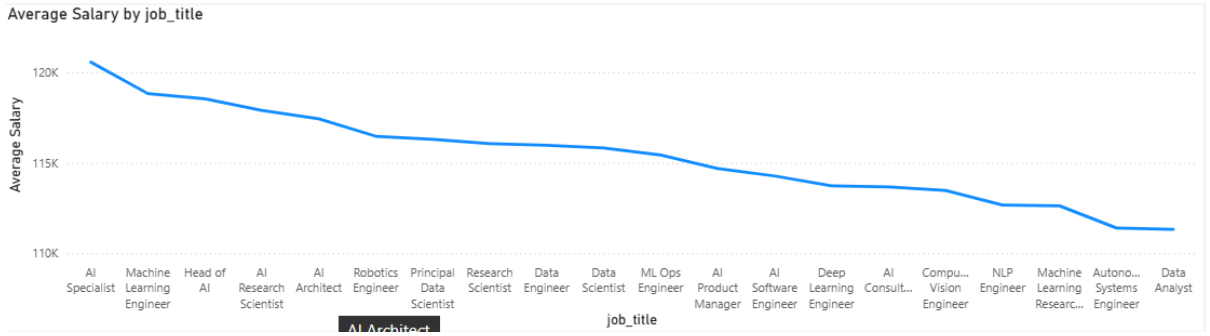
Actionable Recommendation:

→ **Prioritize hiring for Machine Learning Engineers and AI Engineers:**These roles have the highest demand and among the highest salaries.They are critical for business success and it means talent is scarce and competitive in this domain.

Q4:How do salaries vary by company size and job title?

Visualization:





Insights:

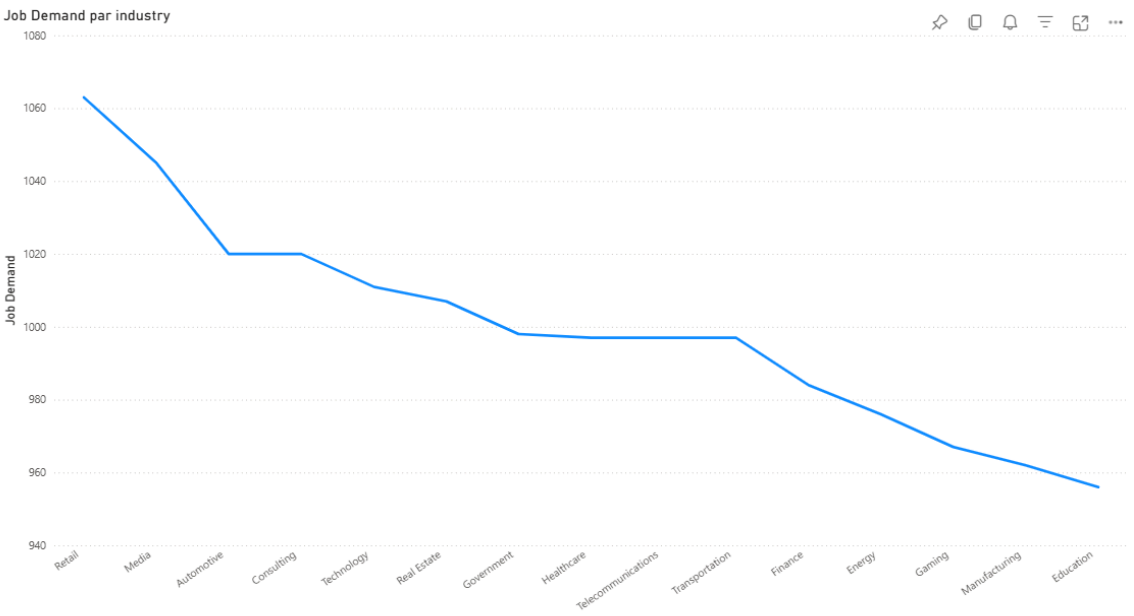
There is a compensation hierarchy influenced by two main factors:

Where you work (Company size): Larger companies pay more across most roles

What you do (Job title/Specialization): Leadership, research, and core engineering roles pay more within any company size bracket.

Q5:Which industries are posting the most AI roles?

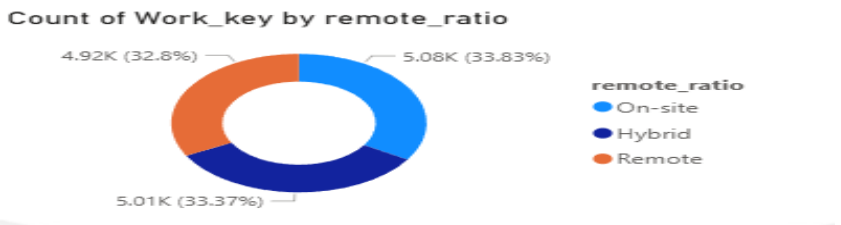
Visualization:

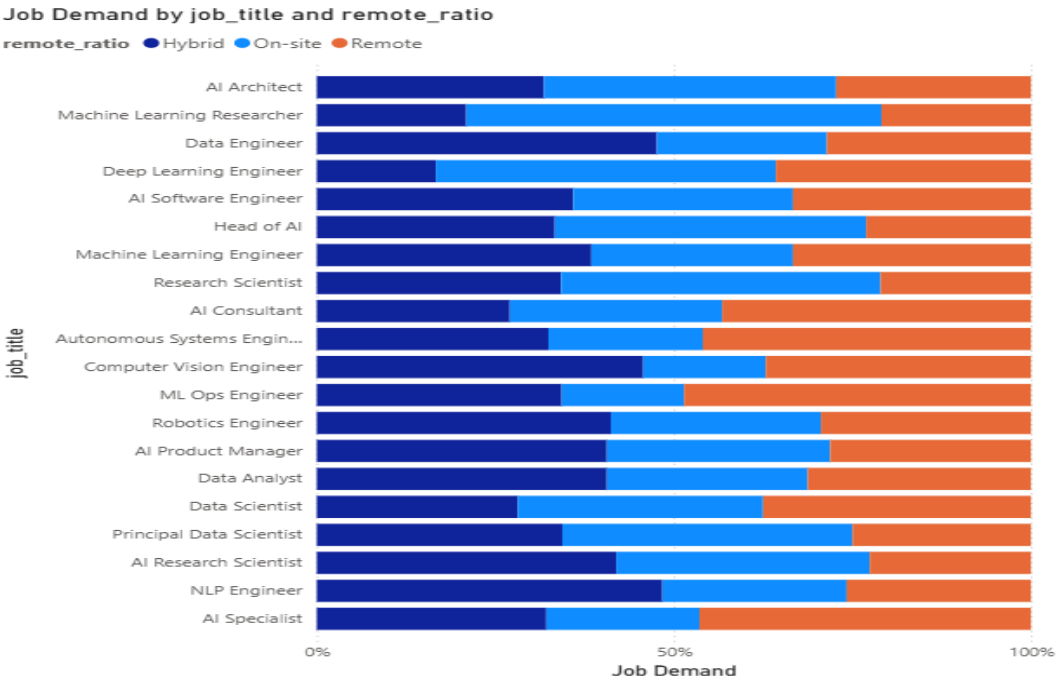


Insights:
→ **Retail and Media lead AI hiring:** They depend on AI for competitive advantage (Personalization & recommendation systems, customer behavior prediction and marketing automation) so they hire the most.
→ **Traditional sectors lag behind:** Manufacturing,education, and energy show lower AI hiring because of slower digital transformation and less data-driven business models

Q6:How does the remote_ratio (remote vs hybrid vs on-site) vary by AI role, location, and company size?

Visualization:





Insights:

Chart 1: Count of work by remote ratio insight

The market is almost evenly divided into thirds across all work models, with no single model being a clear majority

Chart 2: Job demand by job title & remote ratio

Specialized strategic, or research-oriented roles tend to be more remote-friendly. Roles requiring physical hardware (robotics), high collaboration, or leadership presence lean towards hybrid or on-site.

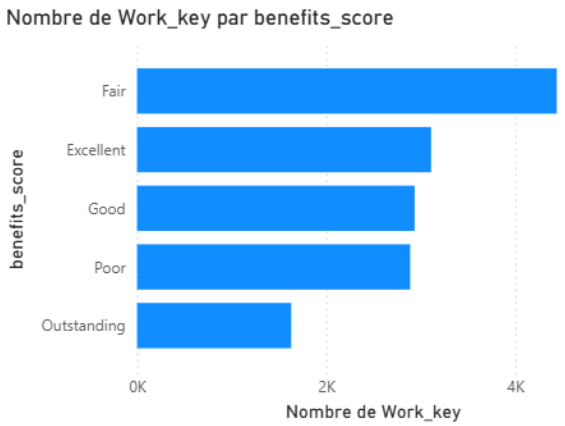
Chart 3: Job demand by company location & remote ratio

South Korea is shown as a stark example where On-site work is overwhelmingly dominant, with very little remote or hybrid representation.

Work model availability is heavily influenced by geography and local culture. National norms, infrastructure, and corporate culture dictate whether remote work is an option.

Q7: Are most employers offering strong, average, or weak benefits?

Visualization:



Insights:

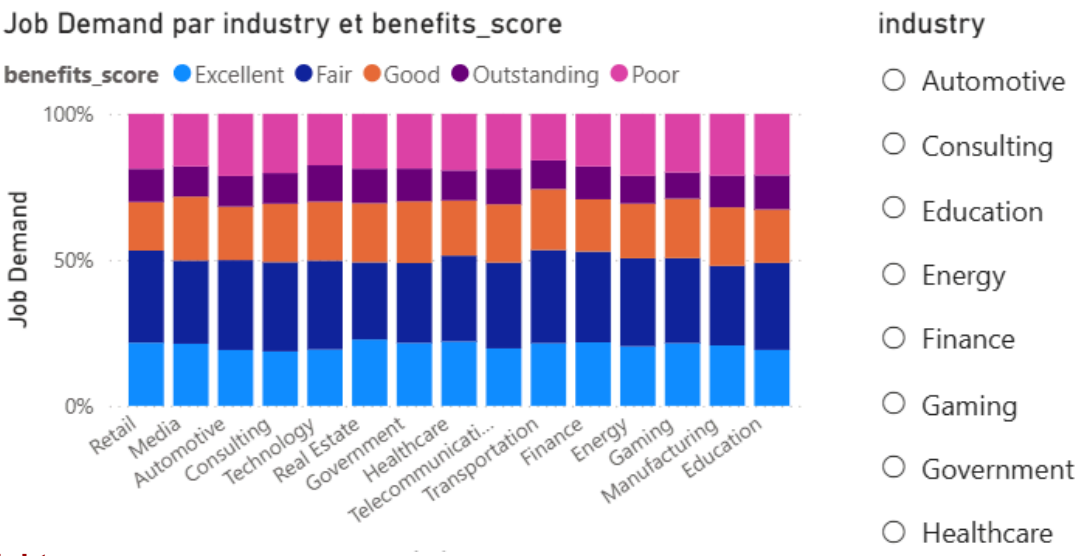
→ **"Fair" benefits dominate the market:** The largest number of jobs are labeled Fair, many employers meet only minimum or standard benefit expectations. Companies are prioritizing hiring but not necessarily investing heavily in benefits to attract talent.

Actionable recommendation:

→ **Move from "Fair" to "Good" as a minimum standard:** Since most companies are offering only Fair benefits, become more attractive than the average employer.

Q8.How does the quality of benefits vary across industries, and which industries offer more competitive benefits to attract talent?

visualisation:



insights:

→ **The Outstanding (purple) portion is small in all industries:** No industry strongly differentiates itself through exceptional benefits meaning benefits are not yet a main competitive strategy.

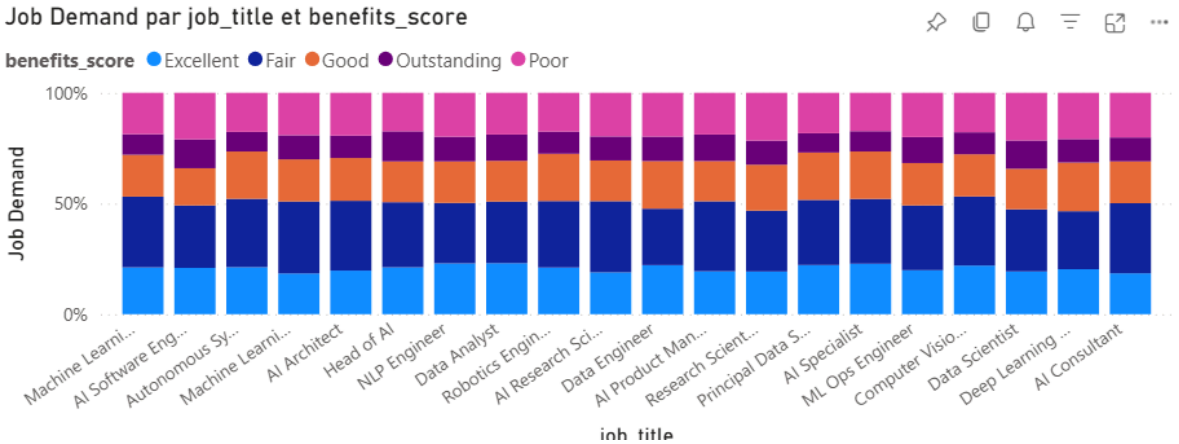
→ **Government and Healthcare slightly lead in benefit quality:** These sectors appear more structured and stable in benefits.

Q9 :Are high-demand industries also offering better benefits?

→ **Retail and Technology have high job demand, but not the highest benefit quality**.This means companies rely more on job availability and salary than benefits to attract talent

Q10:How does the quality of benefits vary across different AI job roles, and which roles receive more competitive benefit packages?

Visualization:



Insights:

→ **Senior and strategic roles have slightly better benefits:** Roles such as head of AI, AI architect, principal data scientist show slightly higher shares of Excellent and Outstanding benefits.companies use benefits more strategically for leadership and critical positions.

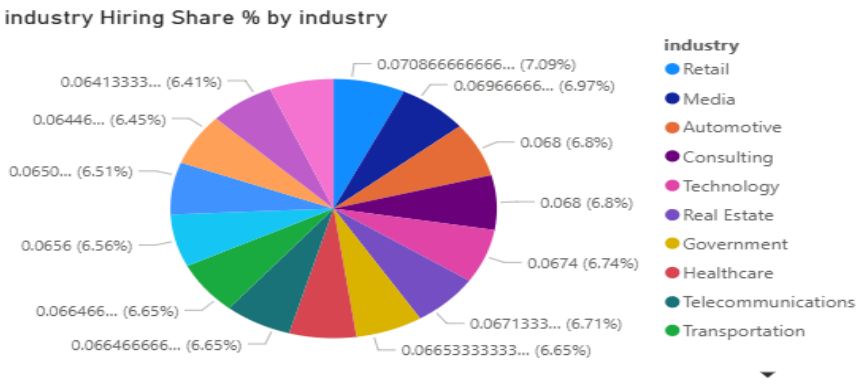
→ **Technical specialist roles still get mostly Fair/Good**

Actionable recommendation:

→ **Become an employer of choice without unsustainable salary inflation.** Since benefits are similar across companies, improving them creates differentiation. Introduce:Flexible hours// Remote-first policies// Mental health and wellbeing programs// Family support benefits

Q11: Which industries are posting the most AI roles?

Visualization:



Insights:

→**The job market is highly diversified**, with every major industry actively hiring at similar levels. This suggests that job seekers have opportunities across many fields, not just tech. economic hiring activity is balanced and resilient, not dependent on a single sector.

Actionable recommendation:

→**Competitive recruitment:** Since demand is balanced, talent competition is cross-industry. Highlight what makes your industry unique to attract candidates who might be considering multiple sectors.

→**skill-based hiring:** Adopt skill-based assessments since candidates may come from various industries but possess relevant competencies.