

Presented by  
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# Smart LinkedIn Connection Recommendation System

**Tool Used**

Microsoft Power BI

**Domain**

Professional Networking Analytics

Next Slide ➤

# Problem Statement

## Problem

- Professional networking platforms generate many low-value connections.
- Most connections do not provide career growth or mutual benefit.
- Users connect randomly without clear insight.

## Challenge

- How to recommend high-quality, meaningful professional connections
- Based on skills, experience, seniority and career alignment



# Project Objective

## Objective

- Build a data-driven recommendation system.
- Identify and rank high-value LinkedIn connections.
- Provide clear reasoning behind each recommendation.

## Key Focus

- Compatibility
- Skill intelligence
- Mentorship vs peer collaboration
- Mutual network value



# Dataset Overview

## Dataset Summary

- 50,000 professional profiles
- 500,000+ compatibility pairs
- Synthetic, ML-ready dataset

## Key Tables

- profiles.csv – profile details
- compatibility\_pairs.csv – connection scoring



# Solution Approach

## Solution

- Built an AI-inspired recommendation dashboard using Power BI.
- Used compatibility scoring & ranking logic
- Visualized insights using interactive charts

## Techniques Used

- DAX measures
- Ranking logic
- Interactive slicers
- Explainable analytics



# Dashboard Overview

## Main Components

- Profile selector (personalized view)
- KPI cards (summary metrics)
- Recommendation table
- Career & mentorship analysis
- Skill intelligence & seniority distribution
- The dashboard updates dynamically based on selected profile.

## Profile Selector

### What it Does

- Allows selecting an individual professional profile
- Entire dashboard updates for the selected user

### Why it Matters

- Makes analysis user-centric
- Simulates LinkedIn-style personalized recommendations



# KPI Cards

## Key KPIs

- Average Compatibility
- Mutual Network Value
- Average Skill Match
- Average Career Alignmen
- Primary Industry

## Insight

- Gives a quick snapshot of connection quality
- Helps users understand networking strength instantly



# Top Recommended Connections

## Recommendation Table Shows

- Recommended profile name
- Compatibility score
- Skill match score
- Industry
- Experience gap
- Connection rank

## Key Value

- Acts like “People You Should Connect With”
- Rankings are data-driven and explainable

# Compatibility Strength

## Gauge Chart

- Displays overall compatibility strength (0–100)

## Benefit

- Easy for non-technical users
- Quickly identifies weak vs strong connections

# Seniority Match vs Career Alignment

## Column Chart

- Compares seniority matching with career alignment score

## Insight

- Shows whether connections are better for
- Peer collaboration
  - Mentorship opportunities



# Career & Mentorship Analysis

## Scatter Chart

- X-axis: Experience gap
- Y-axis: Career alignment score

## Insight

- High experience gap + high alignment → Mentorship
- Low gap + high alignment → Peer collaboration

## Seniority Match Distribution

## Pie Chart

- Distribution of connections by seniority match

## Insight

- Shows balance between
- Peer-level connections
  - Cross-seniority (mentor/leader) connections



# Skill Intelligence

## Bar Chart

- Skill Match Score
- Skill Complementarity Score

## Key Insight

- High-value connections can be
- Skill-similar (easy collaboration)
  - Skill-complementary (learning & innovation)

## AI-Inspired Recommendation Logic

## AI Concepts Used

- Recommendation system logic
- Scoring & ranking
- Explainable insights

## Note

- Not a trained ML model
- AI-inspired analytics using Power BI



# Business Value

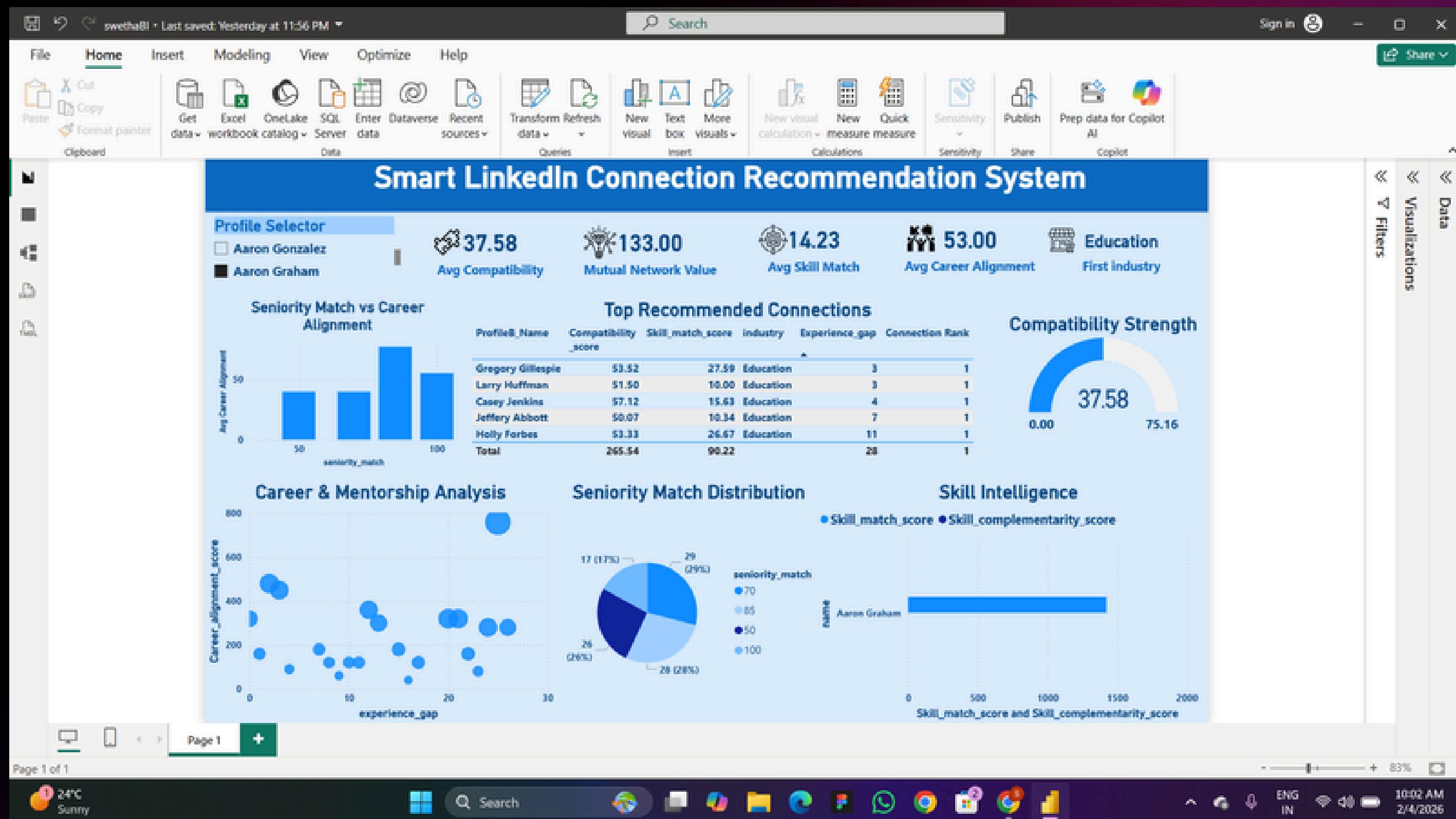
## Benefits

- Reduces low-value networking
- Improves career-relevant connections
- Supports mentorship & collaboration
- Enables data-driven networking decisions

## Conclusion

## Summary

- Built a Smart LinkedIn-style recommendation dashboard
- Combined compatibility, skills, experience & seniority
- Provided transparent and explainable recommendations



This dashboard doesn't just recommend connections — it explains why they matter.

# Thank You!

## Questions?