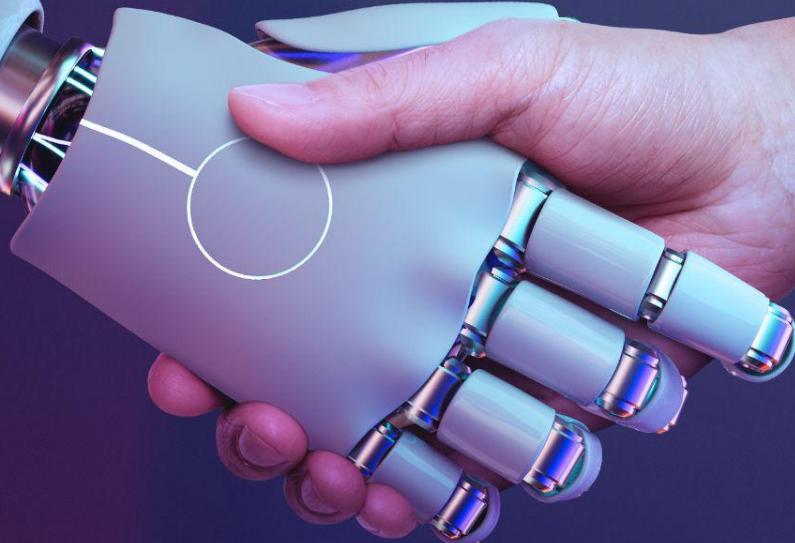


AI insights in job markets



Digital Egypt Pioneers



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Team :

Ahmed Mohamed Abdel-Qawi

Senior student at the Faculty of
Commerce at Sadat city university

Karim samy El-sayed

Level 2 Student at faculty of commerce
Georgia Program at Cairo University

Mohammed Ashraf Mokhtar

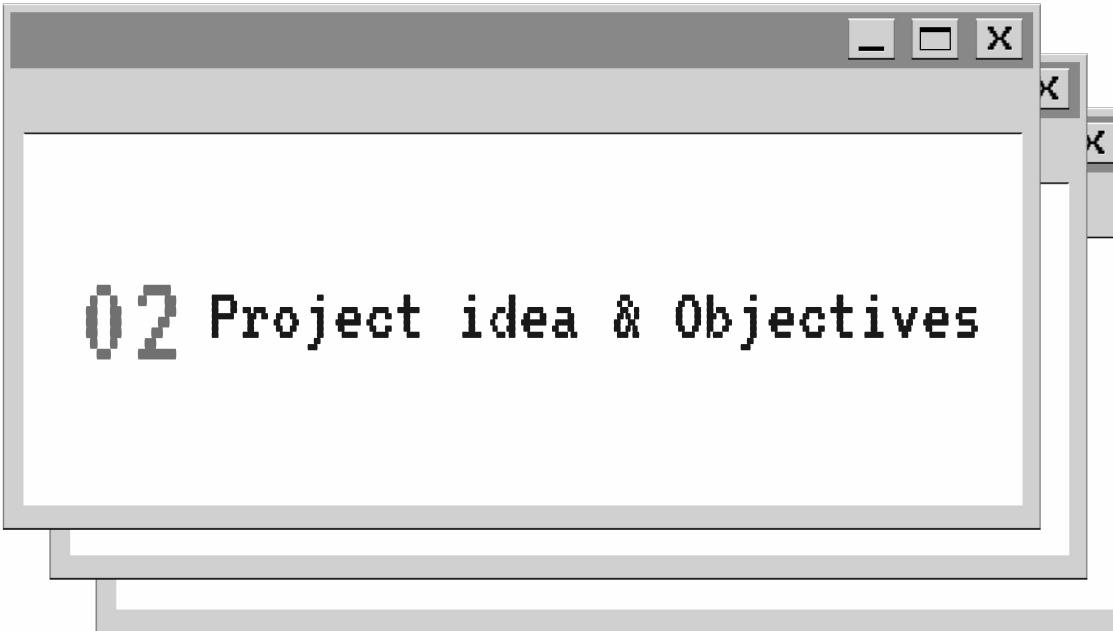
Level 2 Computer Science student at
06U

Nourhan Mohamed Abdel-Rahman

Junior Computer Science student at Benha
university. Passion about data analytics.

Layla Ismail Ibrahim

Second level Computer Science
student at Modern Academy.



Defining the Vision: What the AI Dashboard Will Achieve



Research Question

What are the actual measurable effects of AI on:

- **Job creation vs job displacement**
- **Automation risk and productivity**
- **Skill requirements and career progression**
- **Business performance and employment growth?**

Why this matters?

Everyone says “AI will change everything” – but by how much, where, and for whom?

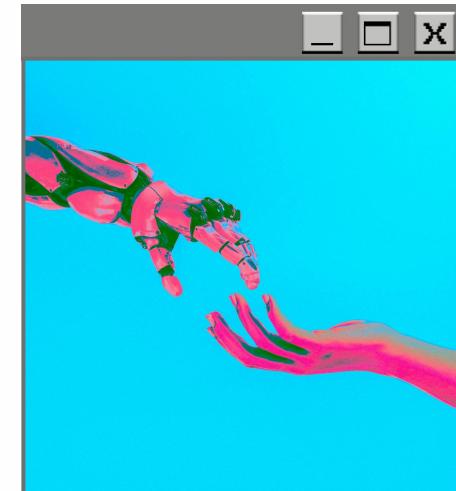
This dashboard uses real-world data to move the conversation from fear and hype to facts.

Objective of this capstone project

Build a fully interactive Power BI dashboard that quantifies the short- and medium-term effects of AI across millions of jobs and thousands of companies.



03 Process of development



From Concept to Curation: The Development Lifecycle

The development process

01 Sourcing

Using AI Models.

02 Preparation

**Cleaned and transformed data
using Power Query.**

03 Analysis

**Built the data model and
visualized insights in Power
BI.**

04 Final stage

**Finalized project reporting
in Microsoft Word.**

power query

Three Power Query windows are displayed side-by-side, showing the transformation process for three different datasets.

Top Window: AI final draft - This window shows the transformation of the "Filtered Rows" query. It includes a preview of the data, column settings, and properties. The properties pane shows the query is named "Dim_Work_Mode".

Column	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Valid	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Error	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Empty	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Middle Window: AI final draft - This window shows the transformation of the "Removed Columns" query. It includes a preview of the data, column settings, and properties. The properties pane shows the query is named "Dim_Skillset".

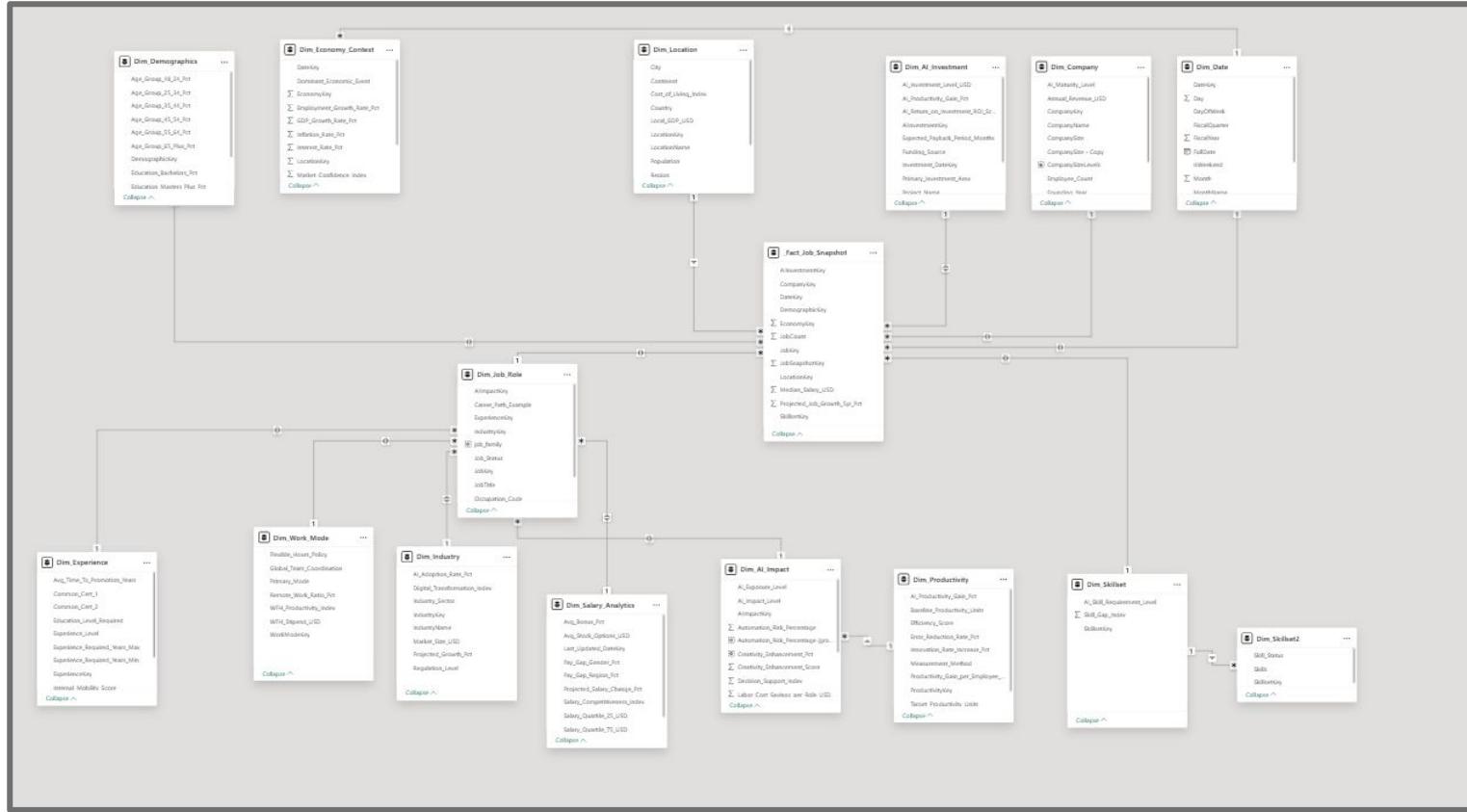
Column	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Required	Python	AWS	Communication	SQL	Salesforce	TensorFlow	Communication	PyTorch	Salesforce	AWS	TensorFlow	Python	GCP	Adobe Photoshop	Excel	Python	SQL	Java	SQL	Salesforce	AWS	TensorFlow	Python	Azure	

Bottom Window: AI final draft - This window shows the transformation of the "Replaced Value" query. It includes a preview of the data, column settings, and properties. The properties pane shows the query is named "Dim_Job_Role".

Column	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
JobKey	AI Specialist	Data Scientist	Marketing Manager	Graphic Designer	Machine Learning Engineer	Financial Analyst	Software Engineer	Graphic Designer	Graphic Designer	Accountant	Track Driver	Data Scientist	Data Scientist	Marketing Manager	AI Specialist	Graphic Designer	Data Scientist	Customer Service Rep	Customer Service Rep	Software Engineer	Software Engineer	Track Driver	Software Engineer	Accountant	
JobTitle	45-8324	11-1516	78-2895	78-1469	73-5440	73-5440	13-3512	52-2181	52-1959	75-3449	83-0177	42-1909	33-8097	25-7528	95-8286	58-7944	82-8798	22-1104	89-4866	58-9860	99-2642	69-2635	79-4827	77-1000	
Occupation_Code	44	46	52	50	52	52	50	52	52	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	
IndustryKey	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
ExperienceKey	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Attenuativity	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
WorkMode	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	

PREVIEW DOWNLOADED AT 9:32 PM

Data Model



⊖ _Measures

- Avg AI Adoption Rate
- Avg AI Adoption Rate 1
- Avg AI Investment Level USD
- Avg AI ROI Rate
- Avg Automation Risk
- Avg Decision Support Index
- Avg Employment Growth Rate
- Avg Error Reduction Rate
- Avg Inflation Rate
- Avg Innovation Rate Increase
- Avg Interest Rate
- Avg Labor Cost Saving
- Avg New Tasks Created
- Avg Productivity Gain
- Avg Projected Salary Change Pct
- Avg Quality Improvement

- Avg Task Automation Rate
- Avg Tasks Eliminated
- Avg Time Saved Per Week Hours
- Avg Turnover Rate
- AvgTimeToPromotion
- Emerging-to-Declining Job Ratio
- GDP Growht Rate
- Skill index average
- SkillGap average
- Total Declining Jobs
- Total Emerging Jobs
- Total Job Count
- Total Job Count1

Timeline



Week 1-2

Week 3-4

Week 5-6

Week 7

Week 8

Research
question +
public dataset
collection

Data
cleaning &
modeling (14
tables)

Visual design
+
interactivity
+ 4 tabs

Peer &
professor
testing

Final
documentation



04 Let's have a look



Visualizing Real-Time AI Performance and Impact



Recommendations

For students: Focus on tech skills, projects, and certifications

For universities: Teach AI-augmented versions of every subject

For policymakers: Support reskilling in high-emergence fields
(Technology, Service Design, AI literacy)



Thank you