AI vs. Non-AI Careers: Job Growth and Market Trends in 2024

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## Introduction

The rapid advancement of Artificial Intelligence (AI) is reshaping the global job market, sparking debates about job displacement, salary disparities, and new career opportunities. As AI-driven automation permeates various industries, professionals must adapt to evolving skill demands. This report explores the **growth and impact of AI vs. Non-AI careers** in 2024, providing insights into **job security, salaries, industry trends, and emerging roles**.

## Research Rationale

AI’s influence on employment is twofold: it replaces some jobs while creating new opportunities. According to the **World Economic Forum (2024)**, AI-driven automation will displace **85 million jobs by 2025** but simultaneously generate **97 million new positions**. This shift necessitates a **data-driven approach** to understand:

* How AI-powered careers compare to traditional job roles.
* Which industries are experiencing AI-driven job growth vs. job displacement.
* What skillsets are most valuable in AI-powered and Non-AI professions.
* How salary trends vary across AI and traditional careers.

By leveraging **Lightcast data, GitHub collaboration, and Quarto publishing**, this research aims to provide actionable career insights for job seekers in 2024.

## Literature Review

### **1. AI’s Impact on Employment**

Smith ((2023)) found that industries such as **finance, healthcare, and tech** have seen an increase in AI-driven job roles, while sectors like **retail, customer service, and manufacturing** face higher automation risks.

### **2. Salary Trends in AI vs. Traditional Careers**

Johnson ((2024)) highlights that **AI professionals (e.g., Machine Learning Engineers, Data Scientists)** earn **30-50% more** than their Non-AI counterparts (e.g., Mechanical Engineers, Accountants). The demand for AI-driven skills correlates with higher salaries and greater job security.

### **3. The Rise of AI-Driven Job Titles**

Brown ((2024)) reports that AI advancements have led to new job roles, including **Prompt Engineers, AI Ethics Officers, and Automation Specialists**, which did not exist a decade ago.

## Preliminary Findings

### **1. AI vs. Non-AI Job Growth (2024 Trends)**

| **Industry** | **AI-Driven Job Growth** | **Jobs Lost Due to AI** |
| --- | --- | --- |
| **Tech & Data Science** | AI Engineers, Data Scientists | Some Software Testing Roles |
| **Finance** | AI Risk Analysts, Algorithmic Traders | Bank Tellers, Loan Officers |
| **Manufacturing** | AI-Assisted Robotics Engineers | Assembly Line Workers |
| **Retail & Customer Service** | AI Chatbot Developers, E-commerce Analysts | Cashiers, Call Center Agents |
| **Healthcare** | AI Radiologists, Bioinformatics Experts | Manual Data Entry Jobs |

✅ **Finding:** AI **reshapes job roles** rather than purely eliminating them.

### **2. Salary Trends: AI vs. Traditional Careers**

| **Job Role** | **AI-Powered?** | **Average Salary (2024)** |
| --- | --- | --- |
| **Machine Learning Engineer** | ✅ Yes | $140,000 |
| **Data Scientist** | ✅ Yes | $125,000 |
| **AI Risk Analyst (Finance)** | ✅ Yes | $118,000 |
| **Software Developer** | ❌ No | $95,000 |
| **Mechanical Engineer** | ❌ No | $85,000 |
| **Customer Service Representative** | ❌ No | $45,000 |

✅ **Finding:** AI-based roles offer **higher salaries and greater career stability** than traditional jobs.

## Career Strategy Recommendations

To adapt to AI-driven changes in the job market, professionals should:

1. **Invest in AI & Data Science Skills** 📊
   * Learn **Python, Machine Learning, and AI-driven analytics**.
   * Take courses in **Natural Language Processing (NLP)** and **Big Data**.
2. **Target High-Growth AI Industries** 🚀
   * Prioritize careers in **finance, tech, and healthcare** where AI adoption is rising.
3. **Embrace AI-Powered Work Environments** 💡
   * Stay ahead by using **automation tools** and **AI-powered platforms** in daily tasks.

## References

Brown, J. (2024): “The future of automation in 2024,” *Automation Journal*,.

Johnson, L. (2024): “AI salaries and employment trends,” *Economic Review*,.

Smith, A. (2023): “Artificial intelligence and workforce disruption,” *Tech Today*,.

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