

Career in Machine Learning: Opportunities in Bangladesh and the Global Market

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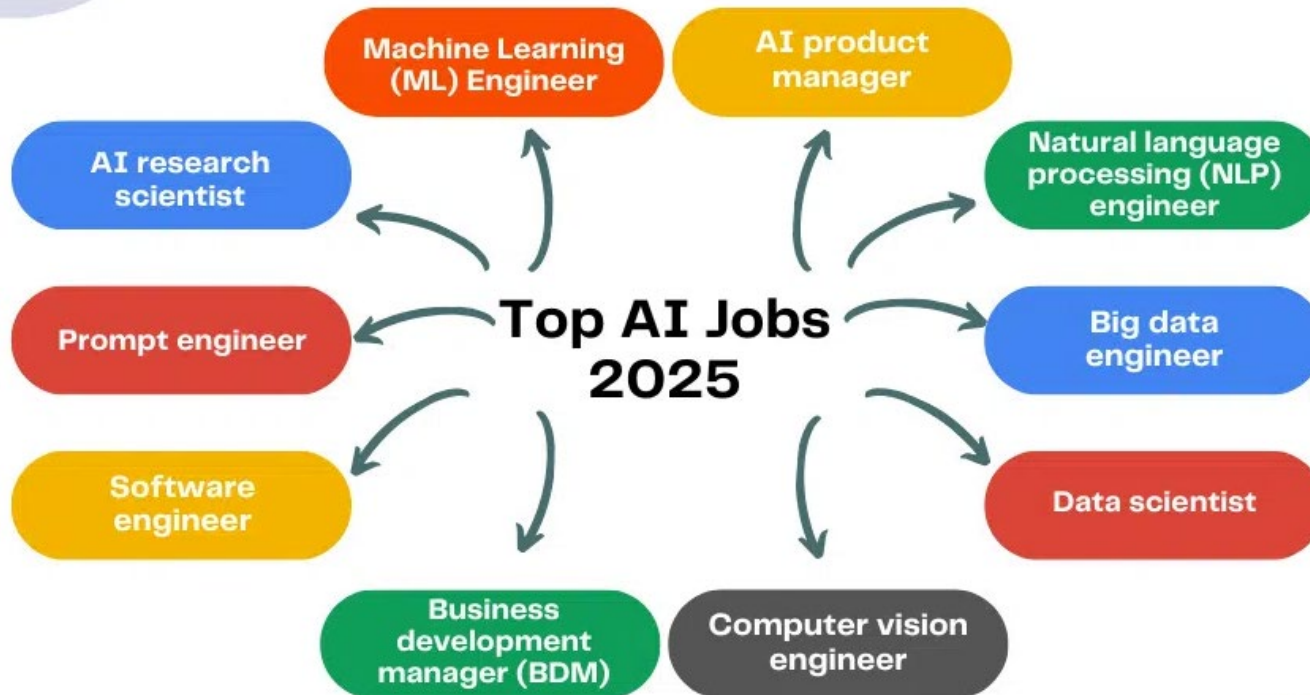
What is Machine Learning?

Machine Learning (ML) is a subset of Artificial Intelligence (AI).

ML Applications include image recognition, natural language processing (NLP), predictive analytics, robotics, and recommendation systems.

Global impact spans healthcare, agriculture, finance, education, manufacturing, and entertainment.

ML Roles



Global ML Market Overview

- The global AI and ML market is expected to reach USD 1.81 trillion by 2030 [1]
- ML is among the top 2 most in-demand skills globally [2]
- AI & ML Specialists' roles expected to grow by 85% by 2030 [3]

1 Artificial Intelligence Engineer

What they do: Artificial intelligence engineers design, develop and implement AI models and algorithms to optimize processes and solve complex problems. | **Most common skills:** Large Language Models (LLM), Natural Language Processing (NLP), PyTorch | **Most common industries:** Technology and Internet, IT Services and IT Consulting, Computers and Electronics Manufacturing | **Where the most jobs are:** San Francisco, New York City, Boston | **Current gender distribution:** 20% female, 80% male | **Median years of prior experience:** 3.6 | **Top roles transitioned from:** Full Stack Engineer, Research Assistant, Data Scientist | **Flexible work availability:** 35.5% remote, 27.3% hybrid

2 Artificial Intelligence Consultant

What they do: Artificial intelligence consultants assist organizations with the adoption and integration of AI technologies to meet business goals and improve operations. | **Most common skills:** Large Language Models (LLM), Prompt Engineering, Python | **Most common industries:** Technology and Internet, IT Services and IT Consulting, Business Consulting and Services | **Where the most jobs are:** San Francisco, New York City, Washington, D.C. | **Current gender distribution:** 30% female, 70% male | **Median years of prior experience:** 4.5 | **Top roles transitioned from:** Operations Associate, Machine Learning Engineer, Data Scientist | **Flex work availability:** 27.8% remote, 39.7% hybrid

12 Artificial Intelligence Researcher

What they do: Artificial intelligence researchers advance AI technologies and solutions or develop new ones through advanced research, experimentation and the development of algorithms or techniques. | **Most common skills:** Deep Learning, PyTorch, Large Language Models (LLM) | **Most common industries:** Technology and Internet, Higher Education, Research Services | **Where the most jobs are:** San Francisco, Boston, Seattle | **Current gender distribution:** 26% female, 74% male | **Median years of prior experience:** 3.2 | **Top roles transitioned from:** Machine Learning Engineer, Data Scientist, Research Assistant | **Flex work availability:** 11% remote, 18.5% hybrid

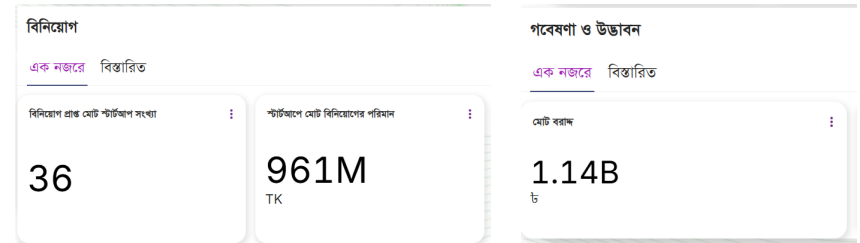
[1] <https://www.grandviewresearch.com/industry-analysis/artificial-intelligence-ai-market>

[2] <https://www.linkedin.com/pulse/linkedin-jobs-rise-2025-25-fastest-growing-us-linkedin-news-gryje/>

[3] <https://www.weforum.org/reports/the-future-of-jobs-report-2025>

The Machine Learning Ecosystem in Bangladesh

- Bangladesh’s AI/ML & robotics sector projected to reach **US\$ 232.20 million** by **2030**, growing at 26.29% annually [1]
- ICT Division and a2i program initiatives promoting data-driven governance and AI applications in agriculture, education, and health.
- Universities started offering AI/ML-focused degrees and research labs.



[1] <https://www.nucamp.co/blog/coding-bootcamp-bangladesh-bgd-most-in-demand-tech-job-in-bangladesh-in-2025>

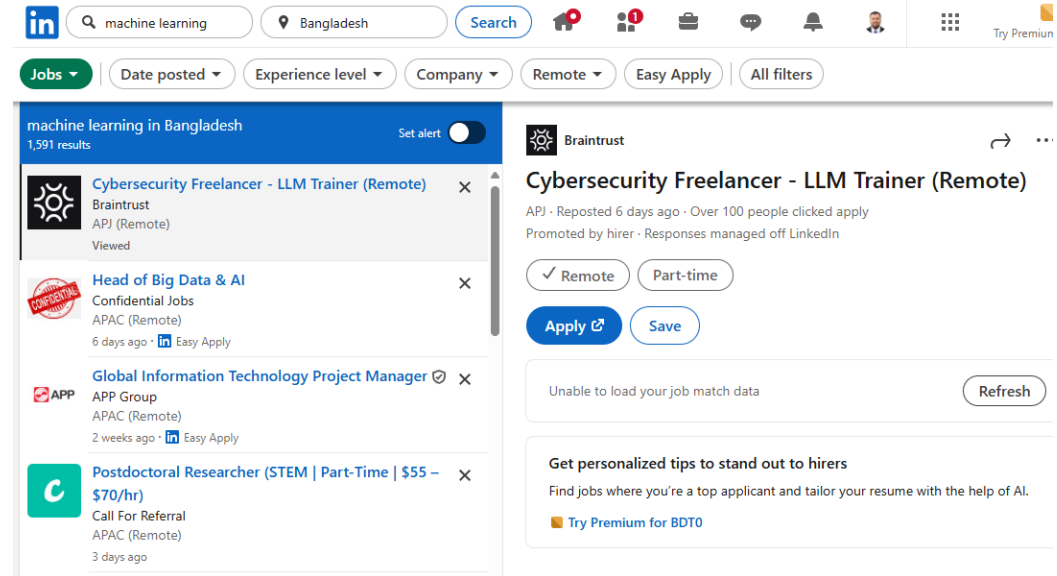
[2] <https://a2i.gov.bd/>

[3] <https://dashboard.gov.bd/ndf/dashboard/ictd/>

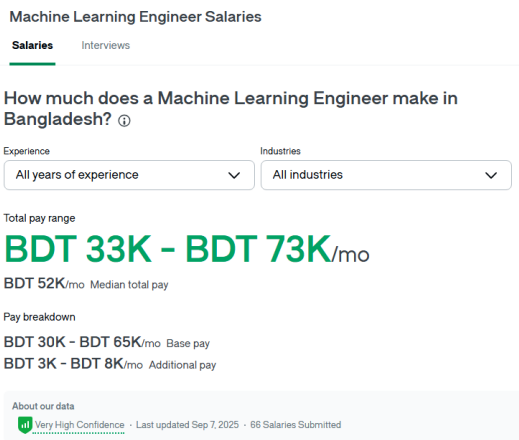
[4] <https://file-dhaka.portal.gov.bd/uploads/3cd0d9a5-2bbb-4f5e-9796-6a68880d403d/63f/706/211/63f7062119efb056903235.pdf>

Local Job Market & Opportunities

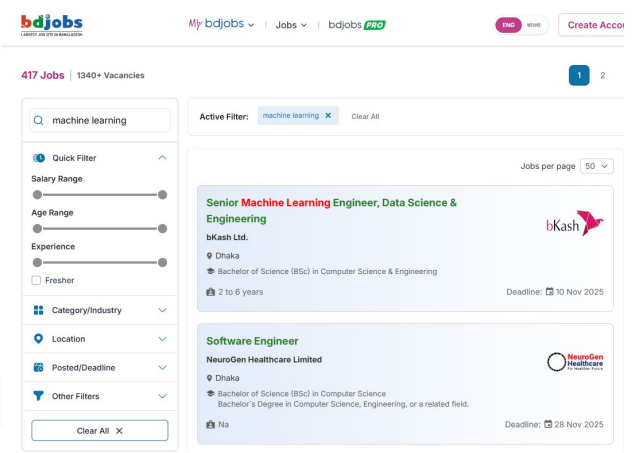
- Over **1500+** Data Scientist and ML Engineer jobs listed on LinkedIn Bangladesh (As of November 2025) [1]
- 400+** in BdJobs.com
- Average salary for ML Engineers in Bangladesh:
BDT 400000/year, with top earners exceeding **BDT 876,000/year** [2]



The screenshot shows a LinkedIn search for 'machine learning' in Bangladesh. The results list several jobs, including 'Cybersecurity Freelancer - LLM Trainer (Remote)' by Braintrust, 'Head of Big Data & AI' by Confidential Jobs, and 'Global Information Technology Project Manager' by APP Group. A detailed view of the Braintrust job is shown on the right, indicating it is a remote position and has been reposted 6 days ago.



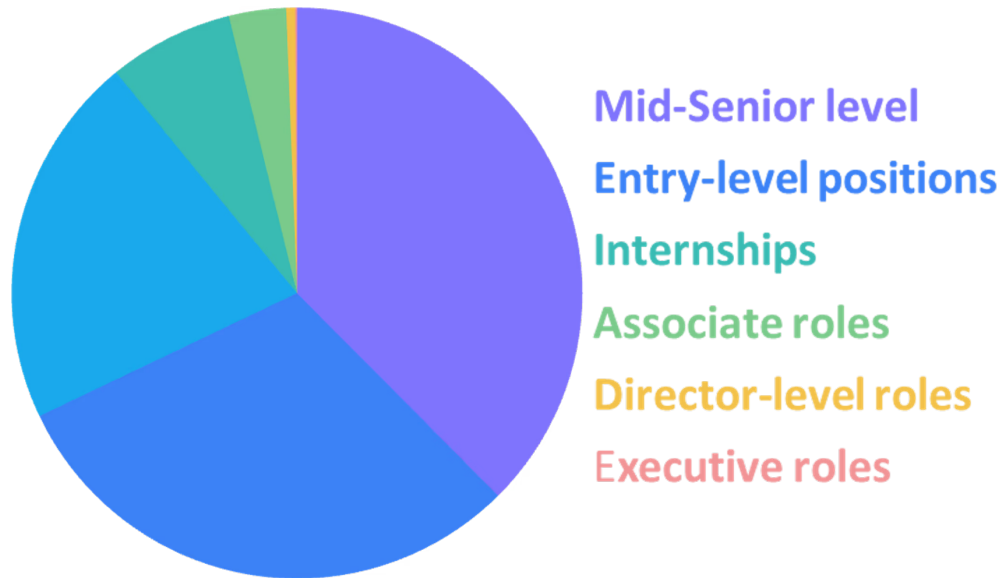
The screenshot displays the Glassdoor salary data for Machine Learning Engineers in Bangladesh. It shows a total pay range of **BDT 33K - BDT 73K/mo**, with a median total pay of **BDT 52K/mo**. The data is based on 66 salaries submitted as of September 7, 2025.



The screenshot shows the BdJobs.com search results for 'machine learning'. It lists 417 jobs and 1340+ vacancies. Two specific job listings are visible: 'Senior Machine Learning Engineer, Data Science & Engineering' by bKash Ltd. and 'Software Engineer' by NeuroGen Healthcare Limited.

[1] https://www.linkedin.com/jobs/search/?currentJobId=4308864571&geoid=106215326&keywords=machine%20learning&origin=JOB_SEARCH_PAGE_KEYWORD_AUTOCOMplete&fresh=true
 [2] https://www.glassdoor.com/Salaries/bangladesh-machine-learning-engineer-salary-SRCH_IL.0,10_IN27_KO11,36.htm

Recruiting Trend: A Survey by Powerdrill.ai



Key Takeaways

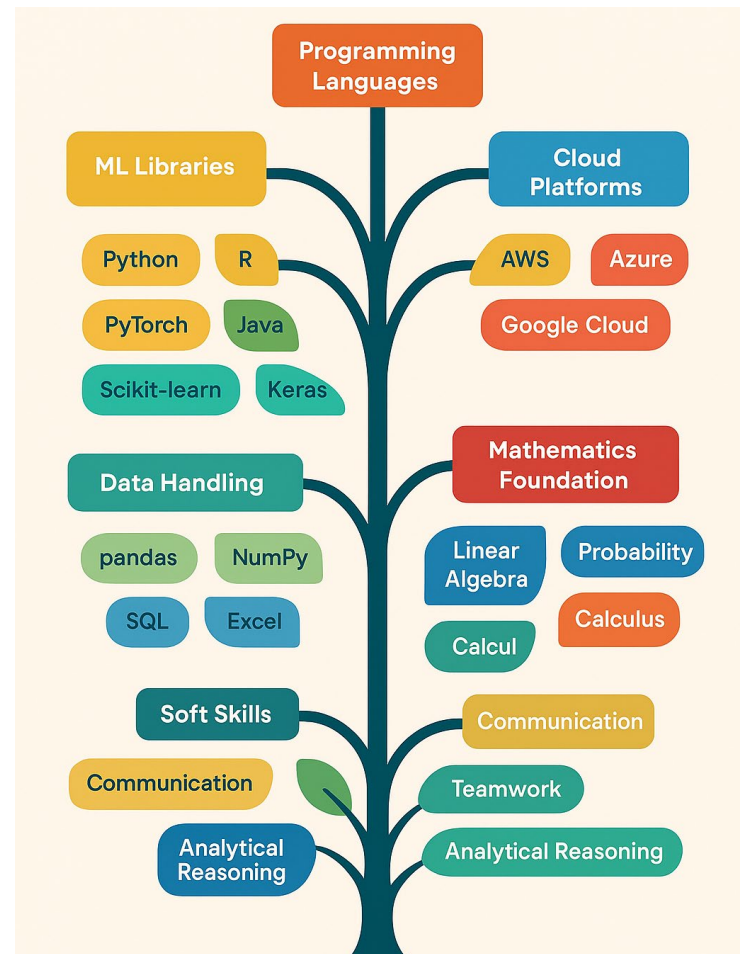
Mid-Senior level is the hiring sweet spot, showing strong demand for professionals with 3–5 years of ML experience.

Entry-level hiring is robust, suggesting that many teams are open to training and growing new talent.

Top-level leadership roles in ML are scarce, likely reflecting that AI leadership is still centralized within a small number of roles or senior specialists.

Skills in Demand for ML Professionals

- **Programming Languages:** Python, R, Java, C++
- **ML Libraries:** TensorFlow, PyTorch, Scikit-learn, Keras
- **Data Handling:** pandas, NumPy, SQL, Excel
- **Cloud Platforms:** AWS, Azure, Google Cloud
- **Mathematics Foundation:** Linear Algebra, Probability, Calculus
- **Soft Skills:** Communication, teamwork, analytical reasoning

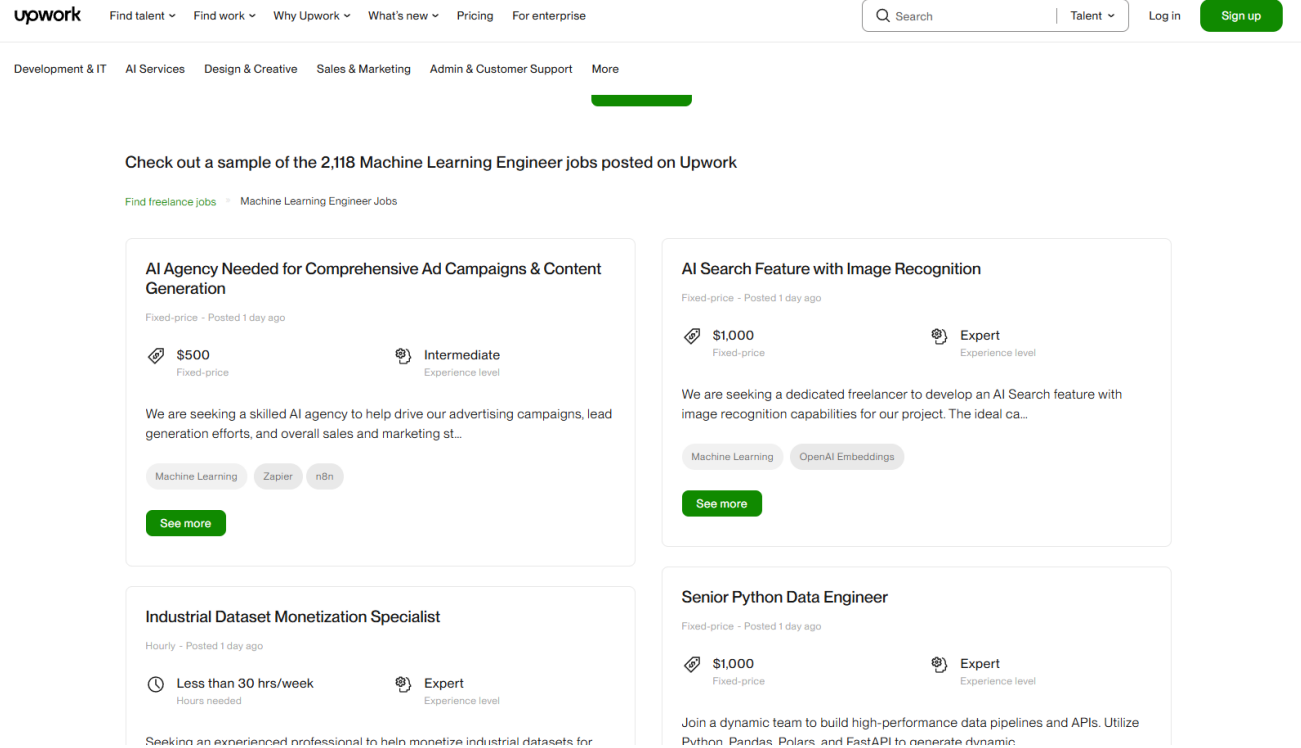


Global Job Market & Salaries

11700+ ML Jobs
available Globally
[1]

\$25-50/hour in
Upwork [2]

\$400000/year in
Senior ML positions
[3]



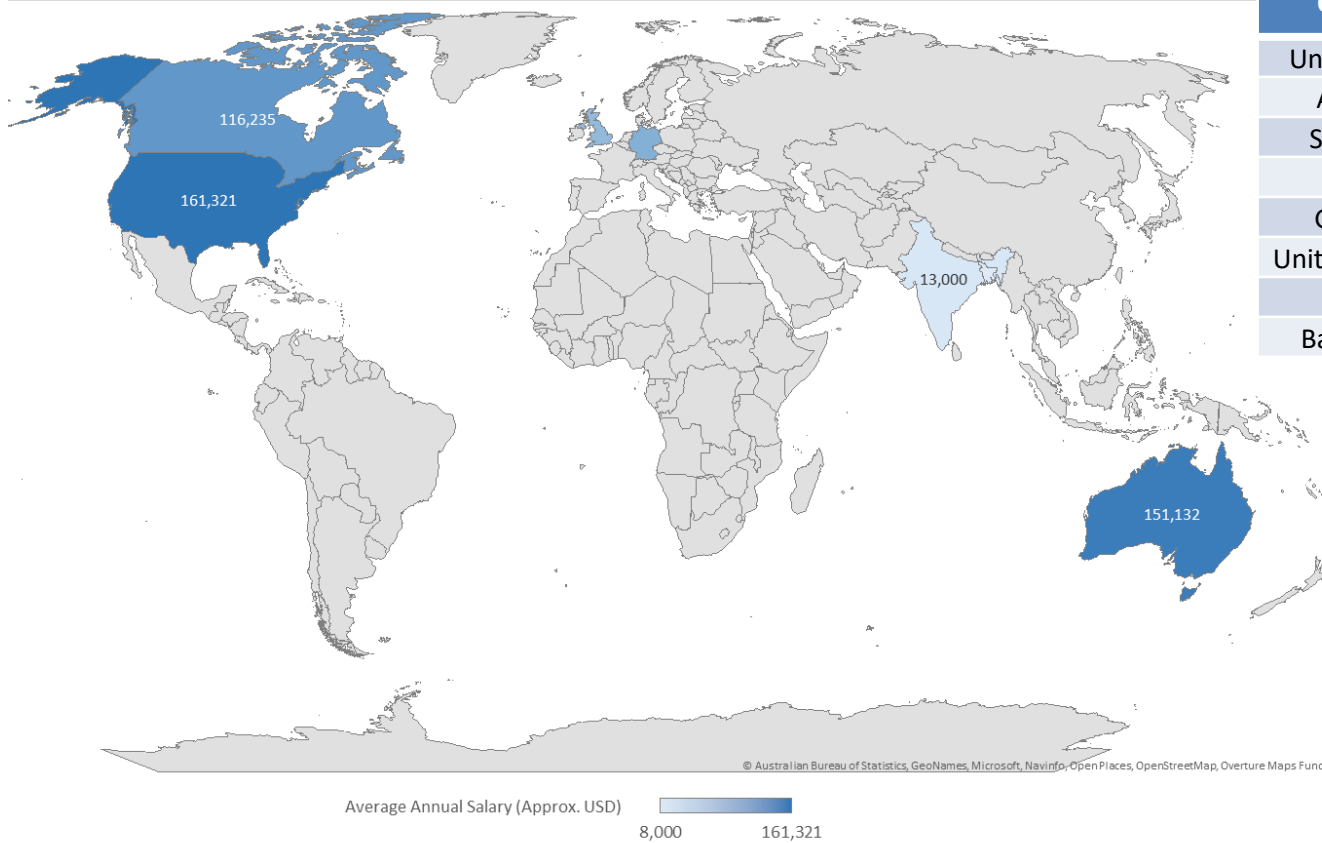
The screenshot shows the Upwork homepage with a search bar and navigation menu. Below the navigation, there's a section titled "Check out a sample of the 2,118 Machine Learning Engineer jobs posted on Upwork". It lists three job postings:

- AI Agency Needed for Comprehensive Ad Campaigns & Content Generation**: Fixed-price, Posted 1 day ago, \$500, Intermediate experience level. Description: "We are seeking a skilled AI agency to help drive our advertising campaigns, lead generation efforts, and overall sales and marketing st...". Skills: Machine Learning, Zapier, n8n.
- AI Search Feature with Image Recognition**: Fixed-price, Posted 1 day ago, \$1,000, Expert experience level. Description: "We are seeking a dedicated freelancer to develop an AI Search feature with image recognition capabilities for our project. The ideal ca...". Skills: Machine Learning, OpenAI Embeddings.
- Industrial Dataset Monetization Specialist**: Hourly, Posted 1 day ago, Less than 30 hrs/week, Expert experience level. Description: "Seeking an experienced professional to help monetize industrial datasets for...".
- Senior Python Data Engineer**: Fixed-price, Posted 1 day ago, \$1,000, Expert experience level. Description: "Join a dynamic team to build high-performance data pipelines and APIs. Utilize Python, Pandas, Polars, and FastAPI to generate dynamic...".

[1] <https://www.indeed.com/q-machine-learning-engineer-jobs.html>
 [2] <https://www.upwork.com/freelance-jobs/machine-learning/>
<https://www.fnlonon.com/articles/point72-offers-400-000-salary-for-ai-engineer-68bb5dfe>



Where we stand?



ML Career Pathways

- **Education:** BSc in CSE, EEE, or Data Science.
- **Skill Development:** Learn Python, ML, and AI frameworks.
- **Projects:** Kaggle competitions, GitHub repositories.
- **Internships:** Local AI startups or research labs.
- **Jobs:** Data Analyst → ML Engineer → AI Specialist.
- **Advanced Study:** MS/PhD abroad in AI/ML.



Education

BSc in CSE, EEE, or Data Science



Skill Development

Learn Python, ML, and AI frameworks



Projects

Kaggle competitions, GitHub repositories



Internships

Local AI startups or research labs



Jobs

Data Analyst → ML Engineer
→ AI Specialist



Advanced Study

MS/PhD abroad in AI/ML

Higher Education & Research



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Postgraduate Studies in AI and ML



- Course-Based Masters
- Research-Based Masters
- Mixed Mode Masters
- PhD



Scholarships

- ✓ Fulbright (USA)
- ✓ Erasmus+ (EU)
- ✓ DAAD (Germany)
- ✓ MEXT (Japan)

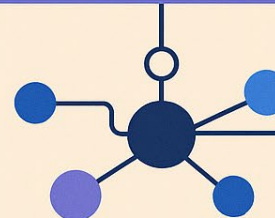
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Collaborative Research Projects

- People from different Universities
- People from different Labs





Future of ML Jobs & Ethics

- Automation may replace routine jobs but will **create millions of new data & AI-related roles.**
- Ethical AI is essential: fairness, transparency, and accountability.



Q&A

MACHINE LEARNING

is not just the future of technology; it's the foundation of tomorrow's economy.

Equip yourself today to lead in that future.



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