



ILLUSTRATION: ZARIF FAIAZ

## Made-in-Bangladesh AI: The roadblocks and the future

A catch-up with Mohammad Oli Ahad, Founder & CEO of Intelligent Machines

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### Maisha Islam Monamee

In an era marked by the ever-accelerating pace of technological advancement, the role of artificial intelligence (AI) stands as a pivotal force in reshaping businesses and industries. Intelligent Machines, a Dhaka-based company that provides enterprise AI products and data science services, has etched itself as a notable name in Bangladesh's AI-based tech industry. We recently caught up with Mohammad Oli Ahad, the founder and CEO of Intelligent Machines, to learn more about the company's mission, technological triumphs, and the strategies propelling it forward.

### Can you provide a brief overview of Intelligent Machines and its core mission?

We started our journey in 2018, specialising in the development of enterprise AI products designed to address a wide spectrum of challenges faced by companies. With a diverse portfolio of 56 live products, our solutions have garnered the trust of 23 clients, both within and outside Bangladesh. We aim to combat the brain drain from Bangladesh by retaining talent and preventing the wasteful integration of foreign components into our local ecosystem. Our commitment lies in crafting indigenous solutions for local challenges, tailored to our context, and instilling a culture of data consciousness among our people.

### How would you describe the current state of the local startup ecosystem, particularly in AI and technology?

A notable gap exists in terms of support and resources for local startups. Raising funds remains a major hurdle, leading many startups to increasingly seek foreign investment. Moreover, the AI market itself is very small. Due to limited domestic demand and the lack of domestic revenue, it becomes difficult for these firms to hire talented individuals. The trick to survival is revolutionising and

practising adaptability and innovation.

### How does Intelligent Machines support local startups when it comes to leveraging AI effectively?

Our AI products are tailored primarily for the core operations of established companies, and startups cannot afford them at the moment. We recognise the pressing need to make AI more affordable and accessible to a broader spectrum of businesses. Currently, our clients primarily consist of medium and large organisations and it's worth noting that the replicability of our AI's cognitive capabilities underscores a demand-side issue rather than a supply-side limitation.

### What recent technological advancements have IM made in the field of artificial intelligence and machine learning?

To compete in AI simulations, the necessity for supercomputers is undeniable. However, within Bangladesh, access to these crucial computing resources remains a significant challenge. Foreign companies impose a staggering 600% markup on such resources, further exacerbated by a 42% tax imposed by the government. In regions like Bangladesh, where computational clusters are limited, even renting these clusters proves to be suboptimal. To address this resource gap, our team came up with the idea of beginning small clusters, and progressively adding more clusters to the calculating nodes along the way. We have also simplified AI models that allow for greater accessibility on low-cost phones and devices with limited network capabilities, fostering a fluid model of AI.

### Can you share an example of how your company has applied AI to solve complex problems?

Once, when he worked with a large global FMCG company, the task was to ensure that their 5,500 sales executives effectively delivered the

brand message to over 7.5 lakh shops. Initially, only 15% of them were successful in this, highlighting a significant communication gap. Through the implementation of speech recognition technology, we were able to enhance this rate dramatically, turning that 15% to over 70%.

### How does IM measure the impact of its AI solutions on the market and industries it serves?

One example worth mentioning is that when it comes to rod manufacturing, engineers would traditionally undertake a time-consuming process of melting and meticulously measuring the iron content in each container, a task that could take 2-3 weeks to complete for a single container. The introduction of AI has transformed this scenario, enabling the execution of a thousand simulations in a matter of seconds. This revolutionary change not only expedites the process but also translates into substantial cost reductions, showing how AI can streamline complex industrial operations.

### What is your vision for the future of Intelligent Machines?

Our vision centres around the development of foundational models, as we want to establish ourselves as a global powerhouse in AI services. We aim to inspire people to feel genuinely assured about technology originating from Bangladesh. However, we recognise the stark reality that startups, despite their boundless potential, routinely grapple with the formidable hurdles that accompany the adoption of cutting-edge technologies such as AI. These challenges often stem from resource constraints, which can hinder access to the tools and expertise needed to embark on transformative AI ventures. These challenges fuel our determination to offer local businesses the support and infrastructure they need to propel further.

## JOBS SPOTLIGHT



### BRAC Senior Programme Manager, Resource Mobilisation

DEADLINE: 29 September

#### ELIGIBILITY

- Experience in resource mobilisation, grants management, and grants strategy development
- Must be familiar with project proposal development
- Previous experience working with humanitarian programmes is a plus

MINIMUM EXPERIENCE: 6-8 years

Apply through the Careers section of BRAC's official website or LinkedIn page.

### H&M GROUP



### Product Technologist, Knit/Jersey

DEADLINE: 29 September

#### ELIGIBILITY

- Prior experience in a product technologist role, preferably in the textile industry
- Expertise in pattern and grading to meet high standards of quality and design
- Ability in decision making as well as in coordinating and managing stakeholders

MINIMUM EXPERIENCE: 7-8 years

Apply through the Careers section of H&M Group's official website or LinkedIn page.



banglalink

### BANGLALINK

### Service Analytics & Excellence Lead Engineer

DEADLINE: N/A

#### ELIGIBILITY

- BSc in Electrical or Electronics Engineering/Computer Science and Engineering
- Experience in GSM network or telecom industry
- Must have knowledge of Telecom Core & Radio network topology

MINIMUM EXPERIENCE: 4-6 years

Apply through the Careers section of Banglalink's official website.

## Here are the top in-demand AI skills, jobs and how much they pay

Not so long ago, artificial intelligence (AI) was primarily the fodder for speculative science fiction novels and films. Today, it stands as an omnipresent technological force, dictating the pace and trajectory of industries around the world. This meteoric rise of AI has spawned a myriad of career avenues, some of which are among the most lucrative and in-demand globally. For those seeking to immerse themselves in this transformative sector, a granular understanding of the prominent roles and the core competencies required is paramount.

### Decoding the top AI careers

In the intricate tapestry of the AI landscape, several roles have emerged as both pivotal and prosperous. Machine learning engineers are often considered the heart of AI applications. They are responsible for designing, developing, and deploying machine learning models. Their work ensures that AI systems can learn from and make decisions based on data.

Robotic scientists, working at the intersection of mechanical design and AI algorithms, strive to create machines capable of mimicking human tasks,

sometimes with enhanced efficiency and precision. Data scientists, wielding a potent mix of statistical knowledge and programming prowess, dissect vast data pools, distilling insights that power AI applications and guide business strategies.

Business intelligence developers move beyond traditional business analysis. They harness AI to craft strategies that can dynamically respond to market shifts, enhancing an organisation's competitiveness. Engaged in frontier research of AI, research scientists explore nascent concepts, from neural networks to quantum computing, laying the groundwork for the next wave of AI innovations.

The gravity of these roles is underscored by the lucrative compensation they command. An AI engineer's average remuneration hovers around \$120,298, while their peers, the machine learning engineers, earn an enticing \$122,617. AI researchers aren't far behind, with an annual package of approximately \$110,094.

### Skillsets: The cornerstones of AI proficiency

To thrive in the AI domain, aspirants



need to cultivate a robust set of skills, each serving as a critical pillar. Proficiency in programming languages such as Python, R, or Java is non-negotiable. These are the tools with which AI algorithms are crafted and refined. As AI thrives on

data, understanding its intricate storage, organisation, and retrieval mechanisms is crucial, making database modelling a key competency.

Data warehousing, which involves the strategic storage of large datasets, ensures

they're primed for efficient querying and analysis. Beyond mere storage, one must master the art of data processing, which includes data cleansing, transformation, and utilisation to feed AI models. Lastly, machine learning isn't just a job title; it's a foundational skill. A deep grasp of algorithms, neural networks, and statistical models is vital.

### Embarking on the AI Odyssey

AI isn't just another IT specialisation; it's a paradigm shift. Prospective entrants should consider a blend of academic endeavours, such as advanced degrees or certifications from esteemed institutions and platforms like Coursera and Nextford, complemented by practical experience. Real-world projects, internships, and contributions to open-source AI initiatives can offer invaluable exposure.

As the growth of AI continues its relentless march, reshaping industries and economies, the opportunities it offers are profound. Those equipped with the right skills, an unquenchable curiosity, and a penchant for innovation stand poised to not just partake in this revolution but to lead it.