

NSU-IBM PARTNERSHIP



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REPORT ON NSU - IBM PARTNERSHIP

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This report provides an overview of the collaborative initiatives undertaken through the partnership between Nakhchivan State University and IBM. It highlights key achievements, as well as outlining future objectives aimed at enhancing technological innovation, academic development, and institutional growth. This partnership reflects our shared commitment to fostering cutting-edge research, education, and digital transformation. We believe that these joint efforts will not only advance the mission of NSU but also contribute to the broader global goals of technological progress and innovation, ultimately shaping a more advanced and sustainable future for all.

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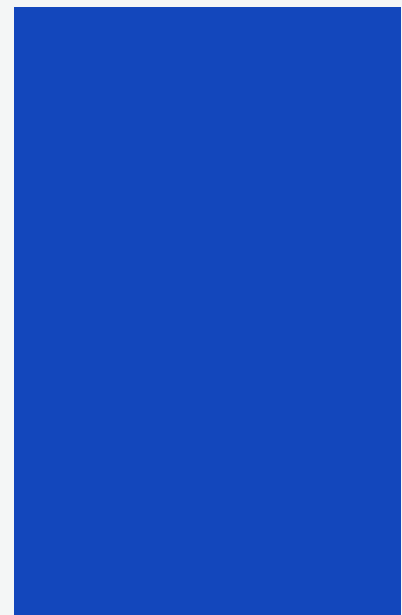
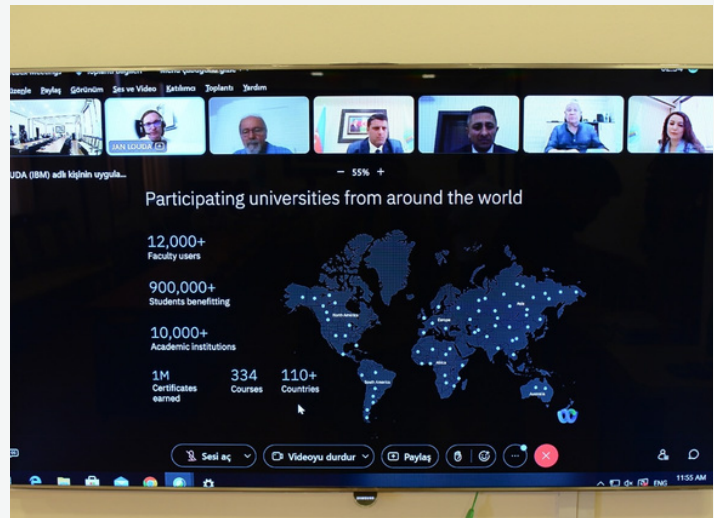
Introduction



IBM, or International Business Machines Corporation, is a multinational technology and consulting company with a storied history and a broad portfolio of products and services. Known for its pioneering work in computing, IBM has been instrumental in many foundational advancements in technology over the last century.

In 2023, Nakhchivan State University signed a Memorandum of Cooperation with IBM, the world's largest IT company. In 2024, the university hosted a meeting with Jan Lauda, an IBM representative, and Hayri Sayi, IBM's liaison for universities. As part of this collaboration, training sessions were organized at the university to support the establishment of a Software Development Institute. Twenty university employees participated in these sessions, which focused on topics such as design solutions, artificial intelligence, and software engineering. In the future, faculty members who earned certificates from these IBM training programs are expected to make significant contributions to the development and operation of the Software Development Institute, which will be established at Nakhchivan State University in partnership with IBM.

The partnership between Nakhchivan State University and IBM represents a transformative initiative with far-reaching effects at both regional and national levels. By leveraging IBM's global expertise and NSU's commitment to academic excellence, this collaboration aims to develop education, research, and innovation in technology. At the regional level, the partnership positions NSU as a leader in modern technological education, fostering local talent and equipping students and faculty with cutting-edge skills. Nationally, the establishment of initiatives such as the IBM Institute and specialized training programs aligns with strategic goals of advancing digital transformation, enhancing workforce readiness, and fostering an innovation-driven economy. Through this partnership, NSU not only enhances its academic and research capacity but also contributes to the broader development of national IT sector, creating pathways for sustainable growth and global competitiveness.



IBM's strategic focus areas

→ 1. Cloud Computing

- Hybrid Cloud Strategy: This approach is especially popular in industries with stringent data privacy requirements, like finance and healthcare.
- Red Hat Acquisition: This acquisition bolstered IBM's hybrid cloud capabilities by allowing it to leverage Red Hat's OpenShift, a containerization platform that enables more seamless cloud management.
- IBM Cloud Platform: IBM Cloud provides infrastructure as a service (IaaS) and platform as a service (PaaS) offerings, allowing businesses to host and manage applications in the cloud..

→ 2. Artificial Intelligence (AI)

- Watson AI: Watson has since evolved into a suite of AI tools used in healthcare, finance, retail, and more.
- Natural Language Processing and Machine Learning: IBM Watson's capabilities include NLP, machine learning, computer vision, and other AI functions, helping industries automate tasks, analyze large datasets, and provide personalized services.
- Industry-Specific AI Solutions: IBM has developed AI solutions tailored to healthcare (Watson Health), financial services, telecommunications, and other sectors to improve efficiency and decision-making.

→ 3. Data Analytics

- Data Science and Business Intelligence: IBM offers a range of analytics tools, such as IBM Cognos Analytics for business intelligence and IBM SPSS for statistical analysis. These tools help organizations derive insights from large datasets to improve strategic decisions.
- IBM InfoSphere: A data integration platform, InfoSphere helps companies manage, integrate, and govern data across complex environments, providing a reliable foundation for data analytics..

→ 4. Cybersecurity

- IBM Security: IBM is a significant player in the cybersecurity sector, providing services and solutions that protect companies from cyber threats.
- Threat Intelligence and Incident Response: IBM's X-Force Threat Intelligence team collects and analyzes threat data from various sources.

→ 5. Quantum Computing

- IBM Quantum: has developed quantum processors and algorithms that can solve complex problems beyond the capability of classical computers.
- Qiskit: It is an open-source quantum computing software development framework enabling developers to create and run quantum algorithms on quantum processors.

→ 6. Consulting and IT Services

- IBM Consulting: helps businesses integrate new technologies, optimize processes, and undergo digital transformation.
- Technology Services: offers managed services, IT outsourcing, and technology support to assist companies in managing their IT infrastructure.

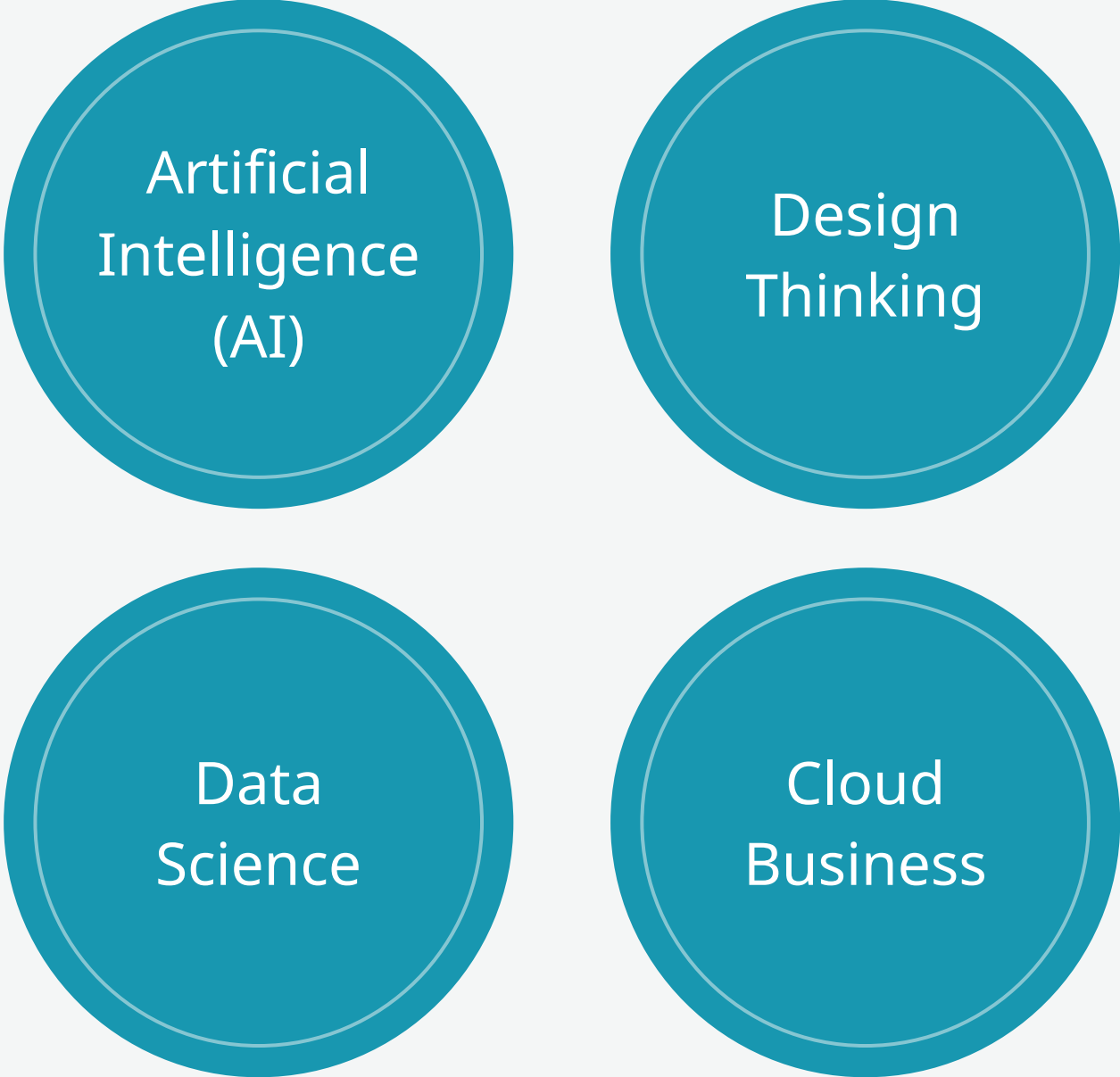
→ 7. Legacy and Transformation

- IBM is known for its evolution from a hardware-focused company to a leader in software, services, and cloud computing.
- IBM Research, one of the world's largest corporate research organizations, has been responsible for many technological milestones.

NSU & IBM

Strategic Partnership

Nakhchivan State University has successfully formed a strategic partnership with IBM to advance the skills and qualifications of its faculty, staff, and students through a structured series of specialized training programs. These programs aim to equip participants with contemporary expertise and practical experience in critical, high-demand fields, including artificial intelligence, design thinking, data science, and cloud-based business strategies.



Artificial
Intelligence
(AI)

Design
Thinking

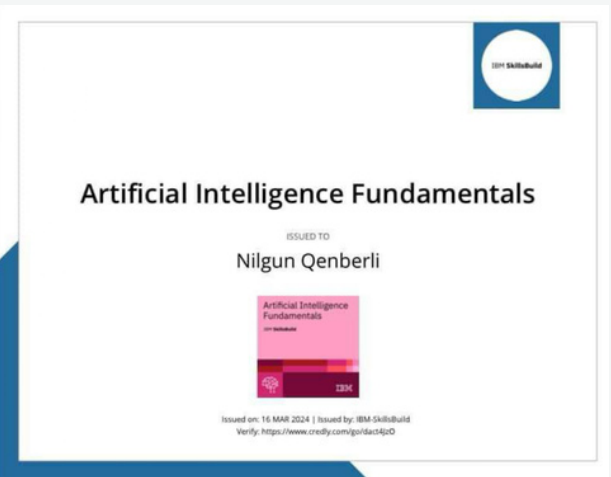
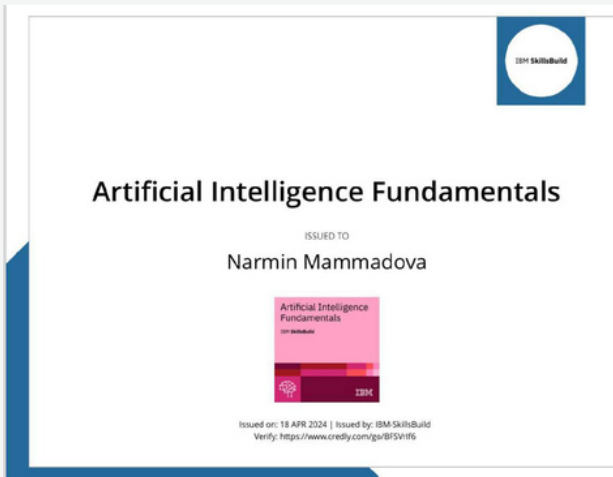
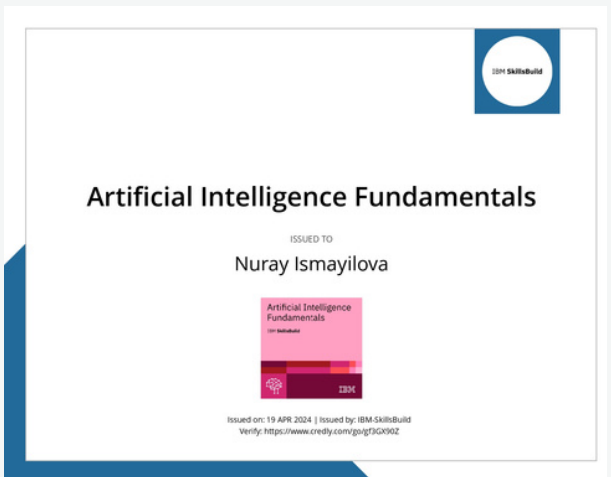
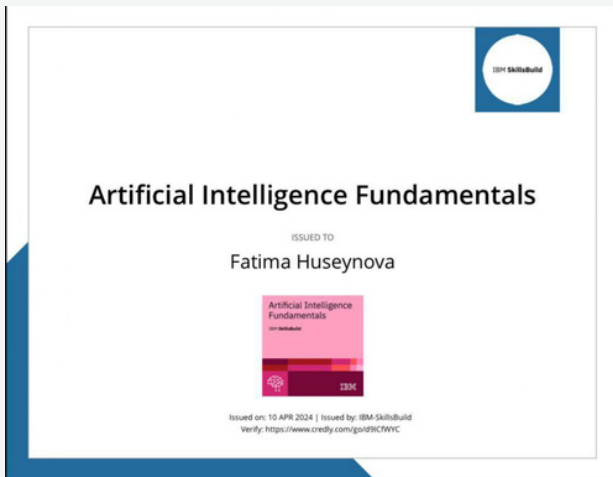
Data
Science

Cloud
Business

1. ARTIFICIAL INTELLIGENCE (AI)

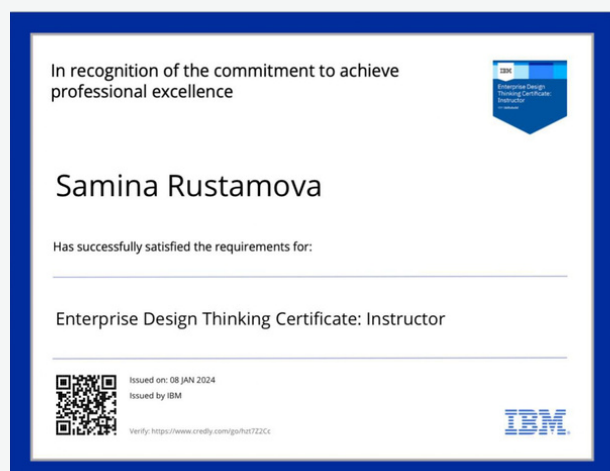
→ AI training offered by IBM provides NSU faculty and students with insights into machine learning, natural language processing, and data-driven decision-making, allowing participants to understand and apply AI algorithms in a range of contexts. A group of Nakhchivan State University employees—Javanshir Zeynalov, Huseyn Gasimov, Ilham Suleymanov, Sariye Gasimova, Rashad Rustamov, and student Shahriyar Guliyev and others—successfully completed IBM's "Artificial Intelligence" course. At the conclusion of the program, they were awarded the "Artificial Intelligence Practitioner Certificate–Instructor V2" by IBM, recognizing their expertise and readiness to instruct others in AI fundamentals and applications.





2. DESIGN THINKING

→ IBM's design thinking methodology teaches participants a human-centered approach to innovation, emphasizing empathy, ideation, and rapid prototyping. Nakhchivan State University employees Samina Rustamova, Roza Agayeva and student Murvat Zamanova completed a 10-day "Enterprise Design Thinking" course led by IBM trainers. Upon finishing the program, they were awarded the "Enterprise Design Thinking Certificate-Instructor" by IBM, acknowledging their proficiency in design thinking principles and their readiness to instruct others in this innovative problem-solving approach. This training fosters creative problem-solving skills, encouraging NSU students and faculty to apply design thinking principles in academic projects and real-world challenges to drive user-centric solutions.



CERTIFIED

3. DATA SCIENCE

→ IBM's data science modules equip participants with skills in data collection, analysis, and visualization, alongside a solid foundation in statistics and predictive modeling. Nakhchivan State University employees Vugar Salmanov, Zumrud Safarova, Sariya Gasimova, Gultaj Zeynalzade, Rashad Rustamov, and student Shahriyar Guliyev successfully completed a "Data Science" course facilitated by IBM trainers. Upon completion, they were awarded the "Data Science Practitioner Certificate-Instructor" by IBM, recognizing their expertise in data science and their qualification to instruct others in this vital field. NDU faculty members and students gain experience with popular data science tools, enabling them to analyze large datasets effectively and derive actionable insights, making this training invaluable for research and applications.



4. CLOUD BUSINESS

→ Training in cloud business provides NSU participants with knowledge of cloud-based applications and infrastructure, preparing them for roles in modern digital workplaces. Nakhchivan State University employees Ilham Suleymanov, Huseyn Asgarli, and student Shahriyar Guliyev completed IBM's "Cloud Business" course, led by IBM trainers. At the end of the program, they received the "Cloud Business Practitioner Certificate-Instructor" from IBM, acknowledging their expertise in cloud business practices and their capability to instruct others in this area. By covering cloud security, scalability, and service deployment, this program enhances the ability of NDU's staff and students to manage and utilize cloud technology in alignment with industry best practices.



In recognition of the commitment to achieve professional excellence

Sariya Gasimova

Has successfully satisfied the requirements for:

Cloud Business Practitioner Certificate: Instructor



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In recognition of the commitment to achieve professional excellence

Samina Rustamova

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IBM CENTER AT NSU

The IBM Center at Nakhchivan State University is a hub for innovation, learning, and collaboration, established as part of a strategic partnership between NSU and IBM. The center provides students and faculty with access to cutting-edge resources and training in the fields of technology and engineering.



Training by Hayri Sayi

Nakhchivan State University has taken a significant step toward strengthening its technological capabilities by organizing specialized training programs in collaboration with IBM, the world's leading IT company. In 2024, a week-long training program was conducted at NSU, led by Hayri Sayi, IBM's university coordinator. Twenty faculty and staff members of the university participated in the training sessions, which focused on key areas such as Design Solutions, Artificial Intelligence, and Software Engineering. These sessions were meticulously designed to equip participants with advanced knowledge and skills necessary to drive technological innovation and support the development of the IBM Institute.

The IBM Institute at NSU is envisioned as a hub for fostering expertise in emerging technologies, promoting research and development, and preparing students and faculty for leadership roles in the global technology landscape. The trained faculty members, who have earned certifications from IBM, are expected to play a pivotal role in the institute's future activities. They will contribute not only to the institute's academic offerings but also to its research initiatives, aligning with NSU's mission to remain at the forefront of modern education..



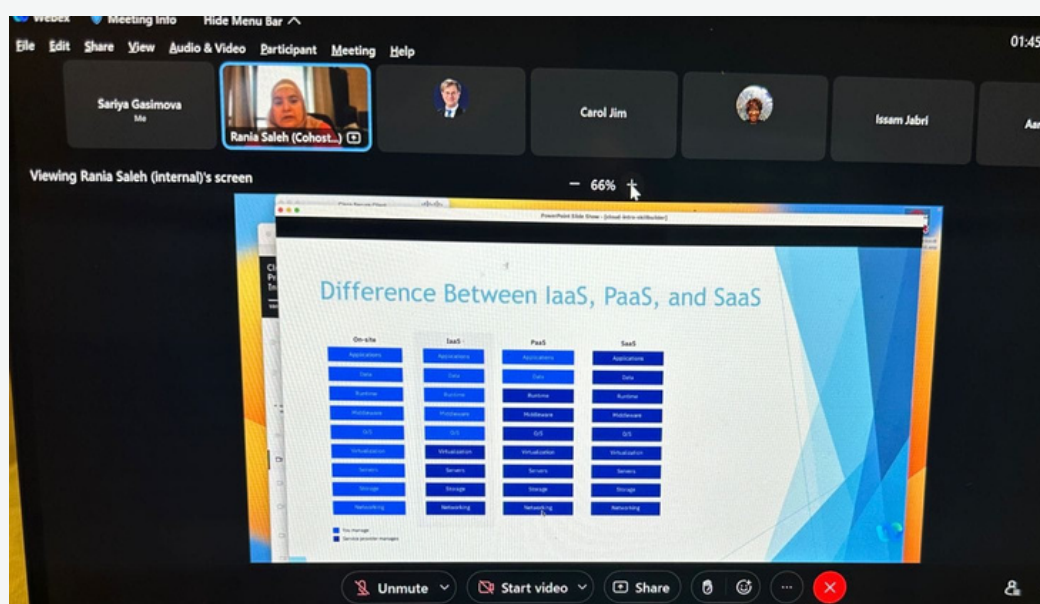
IBM Online Trainings

Teachers and students at Nakhchivan State University benefit from exclusive access to online courses offered by the IBM Skills Network platform. This opportunity is made possible through a collaborative agreement between NSU and IBM, ensuring that students can access the training programs free of charge.

Key Features of the IBM Online Trainings:

- **Courses Offered:** Topics include Cybersecurity, Artificial Intelligence, Web Programming, Database Management, Data Science, and Information Technology.
- **International Certifications:** Students who successfully complete the courses earn globally recognized certificates, boosting their career prospects.
- **Skill Development:** The trainings equip students with practical skills required in modern technology and engineering fields.

NSU's partnership with IBM underscores its commitment to providing students with high-quality educational resources and aligning their learning with international standards.



Outcomes and Implications

- This partnership not only aligns NSU's educational framework with contemporary technological trends but also prepares its graduates for competitive roles in global and local markets. The collaboration with IBM is poised to transform NSU into a hub for innovation and digital readiness, enhancing its reputation and expanding the career pathways available to its students and faculty.
- Through this collaboration, NSU students, particularly those in the Faculty of Architecture and Engineering, are gaining access to a wide array of IBM Skills Network courses. In addition to learning technical skills, students benefit from the globally recognized certifications IBM offers for these courses. Achieving these certifications serves as an international validation of their expertise, enhancing their qualifications and making them more competitive in the job market both domestically and abroad. These certifications are especially valued by employers looking for individuals with verified proficiency in advanced technological areas.
- This partnership also aligns with NSU's commitment to producing career-ready graduates. By bridging academic learning with practical, industry-standard certifications, NSU is helping students gain a combination of theoretical knowledge and applied skills, preparing them for successful careers in technology-intensive roles. Furthermore, these courses expose students to the latest industry practices, methodologies, and tools, contributing to their understanding of real-world applications and innovations.



Let's Work Together



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