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Advancing AI-Driven Healthcare Innovations Through UM-NTU Academic and Industry Synergy.

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Celebrating the launch of the UM-NTU Collaborative Learning Program! Together, faculty, students, and distinguished guests gathered on stage during the Opening Ceremony, marking the beginning of an exciting journey into the world of AI in healthcare. ***#UMNTU2024***

UM-NTU Collaborative Learning Programme: Advancing AI in Healthcare through Academic Partnership

– By Dr Saw Shier Nee, Dr Ong Chi Wei, Goh Yi Xian, Lim Jia Yu, Aliza

On October 12-13, 2024, Universiti Malaya (UM) and Nanyang Technological University (NTU) came together to host the UM-NTU Collaborative Programme on AI in Healthcare, held at the Persatuan Alumni Universiti Malaya (PAUM). This groundbreaking two-day event brought together over 90 students, faculty members, and industry experts from both UM and NTU, creating a platform for knowledge exchange and interdisciplinary collaboration in the rapidly advancing field of AI in healthcare.

Research and Academic Focus: AI in Healthcare

The theme of the event, “AI in Healthcare,” reflects the increasing importance of AI-driven technologies in the medical field. From diagnostics to personalized treatments, AI is

revolutionizing how healthcare is delivered. The event opened with a welcome speech by Dr. Saw Shier Nee from UM and Dr. Ong Chi Wei from NTU, both of whom emphasized the value of international academic collaboration in driving innovation. Their remarks set the tone for a series of engaging sessions that showcased the integration of AI technologies into healthcare solutions.

Industry and Academic Collaborations

A key highlight of the programme was the involvement of Prof. Dean Ho, Director of The N.1 Institute for Health and The Institute for Digital Medicine at NUS, who delivered an insightful online presentation on AI applications in healthcare. Prof. Ho discussed AI's role in personalized medicine, where AI models are used to optimize drug combinations and predict treatment outcomes, revolutionizing patient care.

Prof. Dean Ho sharing his inspiring journey on how integrating AI into his personal daily health monitoring has led to transformative changes in his physical well-being. ***#AIinHealthcare***

Day 2 featured an online presentation by Dr. Fu, an AI specialist in the field of Biomedical Engineering from NVIDIA. Dr. Fu's presentation delved into the role of AI in medical imaging, predictive analytics, and drug discovery, demonstrating how advanced AI models are reshaping the healthcare landscape.

These sessions laid the foundation for students from UM and NTU to collaborate on AI-driven projects. The event provided a unique platform for students to work together, exchanging ideas and problem-solving approaches. With support from industry leaders like NVIDIA, which sponsored platforms for hands-on workshops on generative AI, the students were able to apply their skills in real-world healthcare scenarios.

Workshops and Technical Expertise

One of the most anticipated segments was the NVIDIA Workshop on Generative AI, led by Dr. Saw, which provided students with practical skills in AI model development. The workshop, divided into two parts over the course of both days, allowed participants to dive deep into the mechanics of generative AI, specifically Diffusion Models.

This hands-on experience not only equipped the students with technical knowledge but also inspired future research opportunities, particularly in AI-driven healthcare innovations. The collaboration between UM, NTU, and industry experts like NVIDIA set a precedent for future partnerships aimed at advancing the role of AI in medical fields.

Dr. Saw conducting NVIDIA workshop with the students.

Networking and Future Collaborations

The event concluded with a networking dinner, where students and faculty members from both universities came together to reflect on the two days of learning and collaboration. This informal setting provided a valuable opportunity for participants to establish long-lasting academic and professional connections.

Moving forward, the UM-NTU Collaborative Programme is expected to continue its mission of fostering innovation through joint research projects and further events. With both institutions committed to the advancement of AI in healthcare, the programme represents a powerful partnership that is set to contribute to significant developments in the field.

Student-Led Projects

The heart of the event was the student-led project sessions, where participants from UM and NTU formed mixed teams to brainstorm and present innovative solutions focused on AI applications in Malaysia's healthcare. Under the mentorship of Dr. Saw, Dr Ong and Prof. Park Seung Min, students worked on a range of ideas, including AI-driven diagnostic tools, predictive algorithms for patient care, and solutions for automating administrative tasks in hospitals.

Throughout these collaborative sessions, students engaged in dynamic discussions, demonstrating creativity and technical expertise. The diversity of ideas showcased the potential of AI to transform healthcare, highlighting both universities' commitment to fostering the next generation of innovators.

Students from both UM and NTU collaborating to innovate and develop solutions for pressing healthcare challenges in Malaysia. ***#NTU #UM #AIinHealthcare***

Students bringing their creativity to the stage with a fun skit, presenting innovative AI solutions to tackle Malaysia's healthcare challenges! ***#AIinHealthcare #CreativeMinds***

A Platform for the Future

The UM-NTU Collaborative Programme stands as a shining example of how international partnerships in academia can drive innovation and inspire the next generation of leaders in AI and healthcare. By blending the strengths of two leading institutions, the programme not only highlights the transformative potential of AI but also the importance of collaboration in achieving groundbreaking solutions. Participants left the event not only with new knowledge but also with the motivation to continue exploring the exciting possibilities AI offers for the future of healthcare.

We extend our heartfelt gratitude to the Faculty of Computer Science & Information Technology (FCSIT) of Universiti Malaya for their unwavering support in making this event a success. Their contributions have played a pivotal role in fostering meaningful connections and advancing the impact of AI in healthcare.

We look forward to many more collaborative initiatives like this that push the boundaries of what's possible in both AI and healthcare.

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