Professor Yann LECUN
Citation

Professor Yann LECUN, a visionary figure in artificial intelligence (AI), stands tall among the world's foremost leaders in predicting the course of humanity's future. His daring proclamations have often captured the attention of the media. As the Chief AI Scientist at Meta and Silver Professor at New York University (NYU), he is revered as the "Godfather of AI". His remarkable contributions to the advancement of AI are evident not only in his research and practical applications but also in his efforts in spearheading AI education.

Growing up in France, Prof. LeCun spent his early life in the suburbs of Paris. His father, an aeronautical engineer, had a keen interest in creating remote-control cars and airplanes, which sparked a fascination with engineering in young LeCun. Both of his parents shared a love for science fiction, which further fueled his curiosity and imagination. As a child, he was deeply enamored with the iconic film *2001: A Space Odyssey*. These formative experiences laid the foundation for his commitment to the field of science and engineering, which he has carried with him throughout his life.

Prof. LeCun's journey in machine learning began during his undergraduate studies, which eventually led him to pursue a PhD at Sorbonne Université (formerly known as Université Pierre et Marie Curie). In 1988, he joined the team at Bell Labs, developing neural network architectures and learning algorithms. He was instrumental in developing convolutional neural networks and graph transformer networks. These methods enabled the development of printed and handwritten text recognition systems which were deployed for automated check clearing. Today, these methods have become the industry standard in computer vision, speech recognition, and natural language processing.

In 2003, Prof. LeCun joined NYU's Courant Institute of Mathematical Sciences, becoming a professor at the leading center for applied mathematical research in the US. Ever seeking progress, he has combined interest in robotics with his work on convolutional networks for computer vision to participate in projects for autonomous navigation, at the same time contributing to institutional building by founding the NYU Center for Data Science.

Prof. LeCun's expertise has made him highly sought after by both academic institutions and corporate entities. In 2013, he was recruited by Facebook (now named as Meta) to establish Facebook AI Research (FAIR), while simultaneously teaching and conducting research at NYU. In 2018, he transitioned to the position of Chief AI Scientist, where he has focused on providing strategic guidance and scientific leadership to the organization.

Prof. LeCun's work on neural networks with Geoffrey HINTON at the University of Toronto, and Yoshua BENGIO at the University of Montreal, won him the Turing Award from the Association for Computing Machinery in 2018. Often referred to as the Nobel Prize of computing, this prestigious accolade was awarded in recognition of their pioneering contributions to deep neural networks, which have driven some of the most significant advances in modern computer science. Through their groundbreaking research, the trio has revolutionized the ability of computers to comprehend the world. Their work has not only impacted the products we use daily but has also provided scientists with powerful new tools in fields ranging from medicine and astronomy to materials science.

Prof. LeCun's connection with HKUST runs deep, as he has served on the Advisory Board of the HKUST Center for Artificial Intelligence Research (CAiRE) since its establishment in 2018. This research hub facilitates interdisciplinary research, education, and knowledge transfer in all aspects of AI for the benefit of humanity and society. He has also delivered guest lectures, engaged in fireside chats, and participated in various virtual panels organized by CAiRE, where he shared his insights on the historical and recent development of deep learning and AI as well as the crucial matter of bridging the gap between human learning capabilities and AI systems.

According to Prof. LeCun's perspective, the realm of AI research should prioritize the development of systems that can grasp the workings of the world through observation, much like the way infants and animals do. His forward-thinking vision for AI perfectly fits HKUST's trailblazing initiatives in integrating AI into education and promoting the ethical and responsible use of AI across various sectors. He believes that HKUST is uniquely positioned in Asia as a leading institution for AI research and that forging international collaborations is crucial in creating machines that truly possess intelligence.

Council Chairman, on behalf of the Council of the Hong Kong University of Science and Technology, I have the high honor of presenting to you, Prof. Yann LeCun, Chief AI Scientist at Meta, for the award of Doctor of Engineering *honoris causa*.