**Exploring Artificial Intelligence: My Personal Interest Report**

I am a sophomore student majoring in Computer Science and Technology at Tongji University, and I am deeply fascinated by the field of Artificial Intelligence (AI). Throughout my academic journey and practical experiences, I have been drawn to the immense potential and applications of AI technology, driving my desire to delve deeper into exploration and learning within this domain.

Primarily, I have a keen interest in machine learning and deep learning technologies. These methodologies empower computers to discern patterns and rules from vast datasets, facilitating intelligent decision-making. My aspiration is to comprehensively grasp the principles and applications of various machine learning algorithms, alongside exploring how deep learning models can effectively address real-world challenges. The intricacies of deep learning algorithms and the architecture of neural networks captivate me, motivating me to master these techniques and apply them to practical problem-solving.

Additionally, I am intrigued by Natural Language Processing (NLP) technology. NLP stands as a pivotal branch of AI, enabling computers to comprehend, process, and generate human language. My ambition is to delve into the diverse applications of NLP, ranging from text analysis and sentiment recognition to machine translation, while endeavoring to construct more sophisticated and human-like natural language processing systems. I believe advancements in NLP will significantly propel the development of human-computer interaction and offer invaluable assistance to individuals with language-related barriers.

Furthermore, I am captivated by the potential applications of artificial intelligence in various sectors such as healthcare, intelligent transportation, and smart homes. The extensive scope of AI technology in these domains holds promise for revolutionizing human lifestyles and interactions with technology. I aspire to stay abreast of the latest advancements in AI across diverse fields and contribute my efforts towards addressing real-world challenges. For instance, in the healthcare sector, AI can aid healthcare professionals in diagnosing diseases more swiftly and accurately, thereby elevating medical standards and service quality.

In conclusion, my fervent interest in the field of artificial intelligence drives my aspiration to delve deeper into learning and research within this domain. I am confident that through dedicated study and practical application, I can emerge as a proficient AI technology expert, contributing to the advancement and application of AI technology.