Utilizing Artificial Intelligence and Natural Language Processing Models for Linear Algebra Applications

Aneta Sawikowska[1,2]

[1]*Department of Mathematical and Statistical Methods, Poznań University of Life Sciences, Poland*
[2]*Institute of Bioorganic Chemistry, Polish Academy of Sciences, Poznań, Poland*

Abstract

In the rapidly evolving landscape of Artificial Intelligence (AI) and Natural Language Processing (NLP), there exists a burgeoning potential for advanced applications in mathematical domains, notably linear algebra. This paper delves into the innovative integration of AI and NLP models to generate examples and proofs in linear algebra. We begin by providing an overview of the current state-of-the-art AI models, emphasizing their capabilities in understanding and generating mathematical content. The paper further investigates the models' prowess in constructing and verifying proofs, shedding light on their potential to aid in both pedagogical settings and advanced research.

Keywords

Artificial Intelligence, Natural Language Processing Models, chatGPT, WolframAlpha and Wolfram Language.