

In the spotlight

The application of GPT-4 in grading design university students' assignment: an exploratory study

International Journal of Technology and Design Education

SUTD Authors: Huang Qian, Thijs Willems, Poon King Wang

This study explored whether GPT-4, a powerful AI, can help grade university design assignments, which are often open-ended and difficult to evaluate consistently. Normally, human instructors may give very different grades for the same project because design work is subjective and creative.

The researchers tested GPT-4 in several stages, first using it in a general way, then refining it with grading rubrics and good examples. Over time, GPT-4 became much more consistent with human graders, reaching reliability levels similar to what is expected in formal educational settings. It also produced stable results when grading the same work at different times.

Beyond grading, GPT-4 provided useful feedback, offering students quick guidance to improve their projects. The study shows that, with careful setup, AI can support teachers by making grading fairer, more consistent, and less time-consuming, while still leaving final judgment to human instructors.



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- Huang Qian

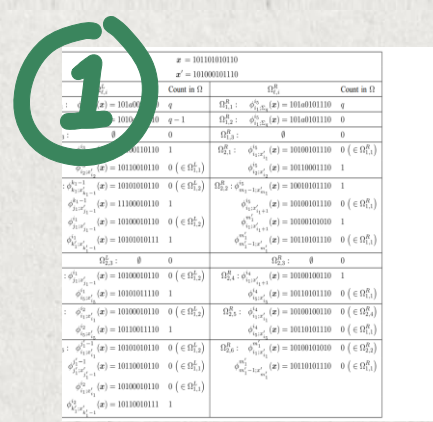
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SUTD Authors: Song Wentu, Cai Kui, Tony Q. S. Quek

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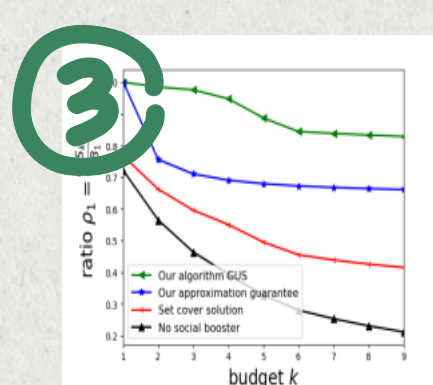
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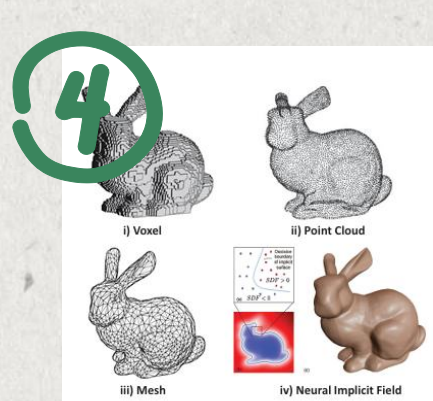


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SUTD Authors: Li Songhua; Duan Lingjie

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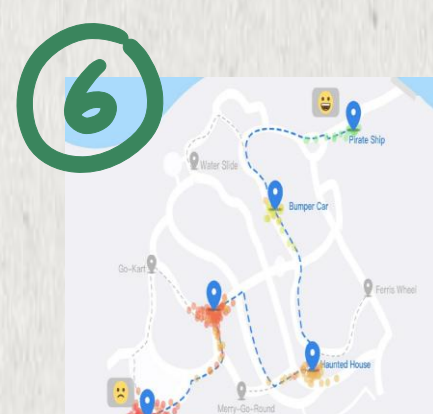


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SUTD Author: Prithvi Krishna Chittoor

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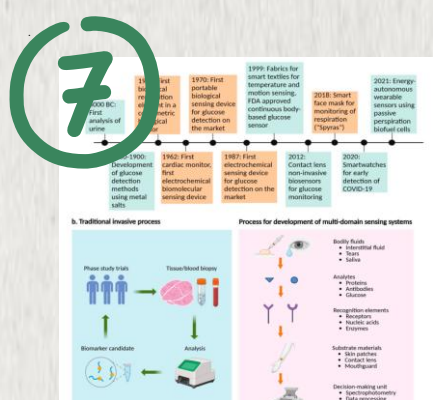


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SUTD Authors: Go Shao-Xiang, Natasa Bajalovic, Desmond K. Loke

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SUTD Authors: Thijs Willems

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