

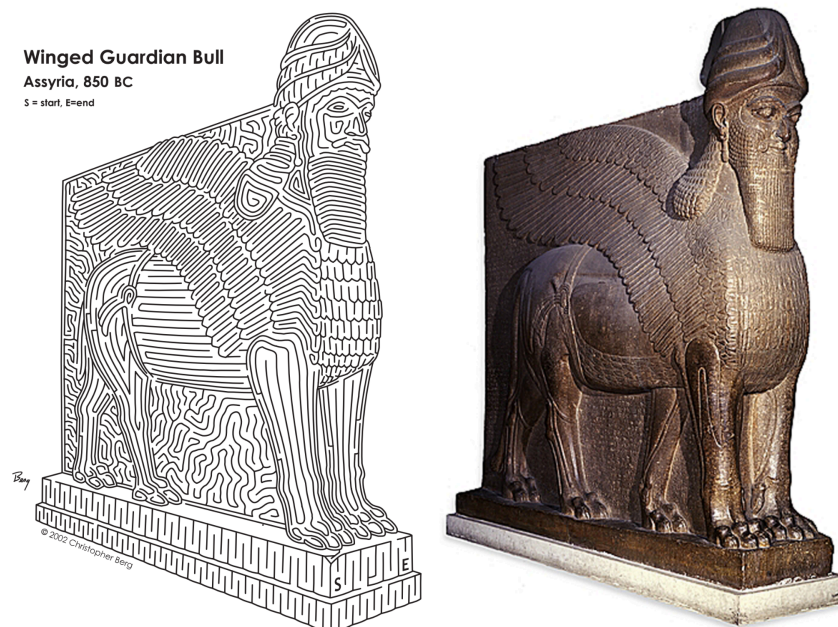
Maze Generation from Images

Keywords: Geometric algorithms, Computational maze generation, Reaction-Diffusion simulation

Objective

Computational maze generation from images is the process of transforming image details into maze structures. Our objective is to analyse the shading information of an input image and design strategies to create a corresponding maze structure. Using an RD-simulator (Reaction-diffusion systems are inspired by natural phenomena like the patterns on animal coats and the formation of biological tissues, simulate the interaction and diffusion of chemical substances across a surface), we plan to create visually pleasing mazes with intricate patterns and varying levels of complexity.

This technique helps users create mazes based on pre-existing designs, such as floor plans, blueprints, or hand-drawn sketches, facilitating the conversion of visual concepts into interactive and solvable maze puzzles.



Number of students: 2-3

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References:

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