

DEVELOPING AI TOOLS FOR K-12 – Fall 2025



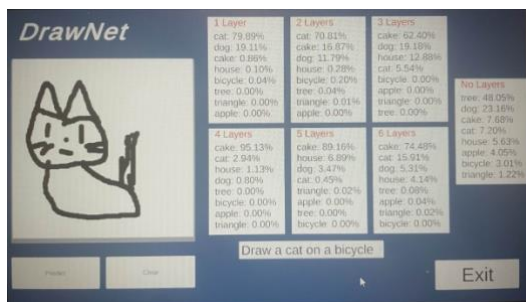
These original software products were developed in Fall 2025 by students at UT San Antonio to teach key ideas in Artificial Intelligence, including machine learning, image recognition, language processing, and algorithms. We hope that you enjoy interacting with them!

Drs. Fred Martin and Ismaila Sanusi,
Computer Science

Dr. Deepti Tagare,
Interdisciplinary Learning & Teaching

DrawNet

Jordan Anderson & Oghenefejiro Fogeh



Discover how neural nets recognize drawings: explore how single or multilayer neural nets behave differently when you draw a cat, house, bicycle and other everyday items.

RowdyRobo Vac

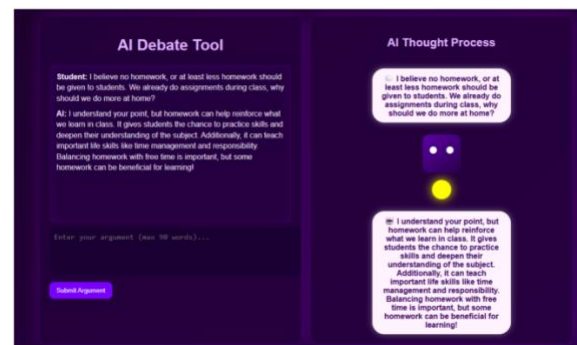
Kayleigh Stallings & Debanish Velez



Program RowdyRobo, a virtual vacuum cleaner, to efficiently clean rooms! Discover how different algorithms work under different conditions and learn a secret in designing an algorithm to work in all scenarios.

AI Debater

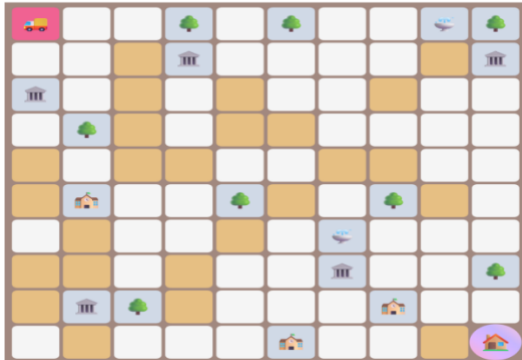
Esteban Leal & Krishn Gohel



Can you win an argument against an AI opponent? You'll have three rounds to beat it with school-oriented topics like "Should there be homework?" and "Should students wear uniforms?"

Ice Cream Express 🍦

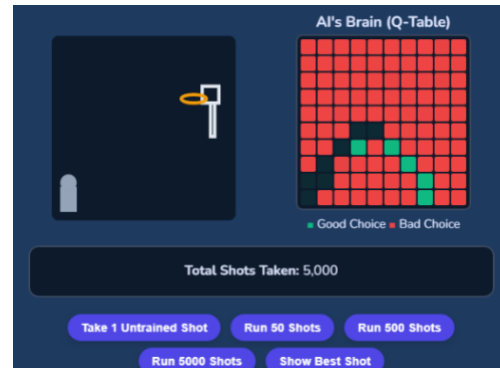
Devansh Shah & Nicole Tian



Your new job is to deliver ice cream and earn the biggest tips. The shorter the path you take, the happier the customer! After your run, compare your route to the AI's. Learn the secrets of the A* (A-star) algorithm, a smart pathfinding logic used by GPS and navigation apps and apply it to your next deliveries to earn more tips!

AI Hoops 🏀

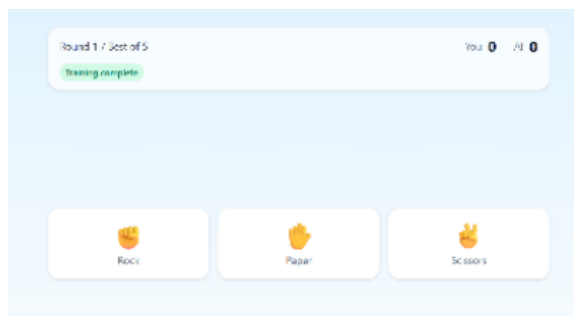
Chris Arellano & Nicole Tian



Play basketball against an AI that's learning the game right alongside you. After you play, switch roles and become the coach. Train your own bot using Q-learning, a powerful reinforcement learning algorithm. Reward it for good shots and smart plays and watch as it learns from its mistakes. Be ready: the challenge gets harder with each level!

Rock-Paper-Scissors Predictor

Adam Ali & John Weaver



Play a game of Rock-Paper-Scissors against an AI agent. Be careful—it learns from your game play! Maybe you can use this to your advantage?

Uno-Ity

Emily Steinmetz & Jermaine Morehead



Teach AI to play a competitive game! Design your AI opponent in a game of Uno by specifying its rules using Decision Trees.