Dmitri Kalinin

High School Student

2023kald@webbstudent.org

SKILLS

Languages: English (fluent)

Programming Languages: Python (Upper Intermediate Level), JavaScript (advanced beginner), HTML (basic level), C# (basic level), CSS (basic level), Lua (basic level)

Other Skills: Computer-Aided-Design (Onshape), IOT (Raspberry Pi, Arduino, Jetson Nano)

EDUCATION

Webb School of Knoxville

AUGUST 2019 - MAY 2023

Current Weighted GPA (4.0 scale): 4.73

AWARDS

- John W. Green Award for Scholarship (2021)

EXAMINATIONS

- **PSAT:** 1400 (October 2019), 1450 (October 2020)
- **Pre-ACT:** 34 (April 2021)
- **American Mathematics Competition:** 73.5 (2020), 106.5 (February 2021)
- **American Invitational Mathematics Exam:** 1 (2021)
- **National Spanish Exam:** Premio de Plata (Level 2, Outside Experience, 2020), Mencion Honorífica (Level 3, Classroom Experience, 2021)

PRESENTATIONS

- CAD Workshops for my robotics team (2020, 2021)
- Machine Learning Workshop for my robotics team (2021)
- SASA Presentation with my robotics team (2021)

LEADERSHIP POSITIONS

- *Co-Founder*: Computer Science Club (2021-)
- *Mechanical Lead*: Webb Robotics FRC Team 1466 (2021-)

VOLUNTEER WORK

- *Junior Counselor*: Camp Webb's 3D Modeling Camp (2021)
- *Junior Counselor*: Camp Webb's Adventure Camp (2021)
- *Counselor in Training*: Camp Webb's Adventure Camp (2018, 2019)

COMPETITIONS

- **Who Wants to be a Mathematician**: 7 (1st round, 2019-2020), 4 (2nd round, 2019-2020)
- **Science Olympiad:** 1st place (Detector Building, 2020), 4th place (Experimental Design, 2020), 4th place (Astronomy, 2020), 3rd place (Chemistry Lab, 2020)
- **Robots to the Rescue CAD Challenge:** 16th place (2020)
- **InspireNC Cad Challenges:** 26th place (Green Generation, July 2020), 8th place (Pirate's Plunder, November 2020)
- **Scholastic Writing Competition:** Silver Key (Fiction and Fantasy, 2020), Silver Key (Critical Essay, 2020)
- **PBS East Tennessee Scholar's Bowl:** Elite Eight (April 2021)

INDIVIDUAL PROJECTS

All code projects are on my Github: https://github.com/DtPeach3707

- Programs that use machine learning and Convolutional Neural Networks to generate, classify, and detect my two cats.
- Program that uses blob detection to track the x and y coordinates of a magnetic pendulum in a video to analyze the behavior of the magnetic pendulum when there was no magnet versus when there was a magnet on the bottom.
- Program that uses a Generative-Adversarial Network to generate card suits in different orientations.
- Reinforcement learning program that uses screen capture, direct keyboard control, and another program that reads the memory of the game to play Mario Kart DS on an emulator
- Reinforcement learning to play Connect 4
- A Web extension to define words in Google Sheets

TEAM PROJECTS

- Verallel: a web extension for easier navigation of the new school website, Veracross.

SUMMER PROGRAMS

- KidsU Financial Literacy Camp (2020)
- Governor's School for the Sciences and Engineering at the University of Tennessee, Knoxville (2021)
- Programs for Talented Youth (Vanderbilt University): Creative Writing (2021)
- Quantum Cryptography School for Young Students (University of Waterloo) (2021)

AFFILIATIONS

- Webb Science Olympiad Team (2019-present)
- Webb Robotics: FRC Team 1466 (2019-present)
- Webb Science Bowl (2019-present)
- Webb Math Club (2019-2020)
- Webb Creative Writing Club (2019-present)
- Webb Scholar's Bowl Team (2020-present)
- Webb Computer Science Club (2019-2020, 2021-)

PERSONAL INTERESTS

STEM, Creative Writing, Martial Arts, Freerunning, and Cat Training