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Jiedong Duan

Education

The University of Chicago, Chicago, IL
B.S. in Computer Science & Mathematics, June 2021. GPA: 3.8
Completed Courses: ***MATH 20700:*** Honors Analysis in Rn I, ***CSMC 16100:*** Honors Intro. to CompSci, ***MATH 20800:*** Honors Analysis in Rn II, ***CSMC 16200:*** Honors Intro. to CompSci II
Niles North High School, Skokie, IL [August 2013 – May 2017]
GPA: 3.99/4.0 UW, 4.74/4.00 W, Graduated Summa Cum Laude

Experience

RISE (STEM Outreach Program) Mentor / [Niles North High School] [June 2017]
- Taught basic 3-D modeling using Tinkercad to small groups of local 5th to 8th grade students and monitored students' progress
- Created small project tutorials in Scratch and guided groups of students through them

Summer STEM Camp Teacher Assistant / [Niles North & Niles West High School]
[June 2015 – July 2015, June 2016]
- Led 3rd-8th graders through activities involving basic robotics, Scratch, and App Inventor
- Maintained an engaging atmosphere by giving individualized feedback for each student's project

Science Olympiad Team Captain / [Niles North High School] [Sept 2015 – May 2017]
- Created and managed team website, coordinated weekly meetings, and recruited new members
- Increased team size from 7 to 20+ and led team to qualify for the state competition both years. Team achieved best regional meet results of the last 4 years in 2017.

Skills

- Experienced in Java & Python and implementing data structures and algorithms
- Knowledge in HTML, CSS, JS, Haskell, C, C#, C++, Unity3D Engine
- Data analysis and mathematical modeling: SciPy package, NetLogo

Awards and Honors

- 2x United States of America Mathematical Olympiad (USAMO) Qualifier – 2015, 2017
- Intel ISEF Finalist (Category: Systems Software) - 2017
- Moody's M3 Math Modelling Challenge Honorable Mention (Top ~90/1000+ teams) – 2016, 2017

Projects

School Bus Routing Simulation
- Created a mathematical model of the school bus routing problem and then used a genetic algorithm to generate routes. The genetic algorithm generated routes in reasonable amounts of time that were very close to optimal for the test scenarios.

Tetris AI Project
- Created a AI for a Tetris game using a minimax search and improved upon the AI by fine tuning the parameters of the algorithm
- Final version of the AI was able to clear over 15 million consecutive lines and almost never lost

Activities and Interests

- **Organizations:** Neighborhood Schools Program (NSP), hack@uchicago, UChicago Tennis Club
- **Interests:** Bicycling, Running, Playing covers of popular songs on piano, Competitive Typing