Rehaan Ahmad

(408) 718-3685
rehaan.contact@gmail.com

EDUCATION

Cupertino High School, Cupertino

August 2016 - Current (Entering 12th grade, 17 years old)

Unweighted GPA: 3.972

PROJECTS and EXPERIENCE

Designing GNNs @ INRIA— Current

Currently working with Gerardo Rubino and his team at INRIA on a Graph Neural Network (GNN) model that forecasts vegetation health by taking in a sequence of antecedent rain and vegetation data (in the form of NDVI) and produces forecasted vegetation health image of any region.

Machine Learning Lead @ FING—2018-2019

Currently working on a variant of the ConvLSTM model that forecasts vegetation health by taking in a sequence of antecedent rain and vegetation data (in the form of NDVI) and "draws" a forecasted vegetation health image of any region.

Annual Gate ConvLSTM— 2018-2019

Worked on a variant of the ConvLSTM model that forecasts vegetation health by taking in a sequence of antecedent rain and vegetation data (in the form of NDVI) and "draws" a forecasted vegetation health image of any region.

An Adiabatic Quantum Computation Based Binary Classifier For Detection of Heap Spraying Attacks— 2017-2018

Wrote a quantum-computing algorithm that detects heap spraying based attacks to identify computer malware. Was one of only a handful of researchers selected to beta-test the D-Wave 2000Q quantum annealing computer.

AWARDS

Google Science Fair 2018-2019, "An innovative long short-term memory-based algorithm for constructing vegetation health maps over Ethiopia"

- Selected as a GSF regional finalist
- Top 100 project internationally

American Invitational Mathematics Examination (AIME) 2019

- Scored a 10 on the AIME II, a top 100 score for juniors across the United States.

Synopsys Science Fair 2019, "Forecasting Vegetation Health Maps of Sub-Saharan Africa Using an Innovative Long Short-Term Memory Based Algorithm"

- First Award
- Trimble Award

Synopsys Science Fair 2018, "An Adiabatic Quantum Computation Based Binary Classifier For Detection of Heap Spraying Attacks"

- First Award
- ASEI Award

AMC 12B Honor Roll, AIME qualification 2018, 2019

- Placed in top 5% in the AMC 12 contest.

AMC 10A Honor Roll, AIME qualification 2018

- Placed in the top 2.5% in the AMC 10 contest.

Synopsys Science Fair 2017 for "Machine Learning Based Orchard Management Software to Improve Yield and Productivity"

- First Award
- Trimble Award

Machine Learning Based Orchard Management Software to Improve Yield and Productivity— 2016-2017

Developed an algorithm that would identify and classify oranges on trees as either healthy or deformed. Also programmed an autonomous drone to photograph an orange orchard to feed images into the algorithm and assess the health of the crop.

High School STEM Club Officer

April 2017 - PRESENT

Serving at the same club that got me interested into science fairs in 9th grade. Over the past two years I have mentored over 40 projects (60 students).