Nikhil Sardana

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Education

Thomas Jefferson High School for Science and Technology
Computer Systems Research, 2014 - 2018
GPA: 4.44
Post-AP Courses: Parallel Computing (C, MPI), Artificial Intelligence (Python),
Multivar Calculus, Math Techniques, Computer Vision (C++)

Experience

Communications Engineering Branch, National Institutes of Health
Engineering Intern, June 2017 - August 2017
Project: Classifying Alzheimer's from fMRI Data using Convolutional Networks
Inception-ResNet-v2 model diagnoses Alzheimer's and stages of cognitive
impairment more accurately than previous algorithms.
Awards: Regeneron STS Scholar, 2018

Projects

Automating Identification of Terrorist Recruitment on Social Media
Worked with friend to create algorithm to identify terrorist propaganda
accounts. Used convolutional networks for flag and logo identification and
SVMs for account classification. Presented research at Raytheon and NSA.
Awards: Intel International Science and Engineering Fair Finalist, 2017
Siemens Competition Semifinalist, 2016

Team Smite, MIT Battlecode
Worked in team of 4 in this month-long competition that combines battle
strategy, software engineering, and AI. Wrote pathfinding, combat, and
communications algorithms and heuristics in Java. Flown out to MIT for final
tournament between top 16 teams. Won $1750 in prize money.
Awards: T-9th Place, 2018

Leadership

TJHSST Machine Learning Club
Co-Founder and Captain, 2016 - 2018
Created lectures and presentations to teach other students the theory behind
ML. Developed weekly Kaggle InClass competitions to apply material to
real-world datasets. Mentored student ML research. Procured sponsorship
from Intel, Yext, and TJ Partnership Fund for computational resources.

TJHSST Chemistry Team
Webmaster, 2016 - 2018
Pioneered use of ChemDoodle 3D models to create interactive learning.
Lectured on Computational Chemistry.

Awards

USA Biology Olympiad Semifinalist, 2015
Top 500 in United States

National Latin Exam Gold Medalist, 2014 - 2016
NJCL Etymology Exam Gold Medalist, 2017
TJHSST Track and Cross Country, 2016 - Present