SAHITHI ANKIREDDY

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EDUCATION

James B. Conant High School
Hoffman Estates, IL
GPA: 3.974/4.000
SAT: 1540/1600 (ERW: 750, Math: 790)

Coursera Courses:
Introduction to TensorFlow for AI, Machine Learning, and Deep Learning | Convolutional Neural Networks in TensorFlow | Natural Language Processing in TensorFlow | Sequences, Time Series and Prediction

SKILLS

Coding Languages:
Java | JavaScript | Python | C++ | Mathematica

Technical Skills:
Machine and Deep Learning | Tensor Flow | Keras | Sci-kit Learn | Unity | AR markers | Mobile App Development | Android Studio

Business Skills: Marketing | Presentations

HONORS AND AWARDS

Research Competitions:
- Best Paper Award at IEEE MIT URTC, 2019
Top project out of 110 projects at collegiate level conference
- Intel ISEF Finalist, 2019
One among the1800 selected around the globe
- 3 x Best in Category at Illinois Junior Academy of Science, 2018 | 2019 | 2020
Top project in computer science category at regional and state fairs for 3 years
- 2 x Junior Science and Humanities Symposia Chicago Region Finalist, 2019 | 2020
Selected for Oral and Poster presentation
- 2 x Selected Presenter at Undergraduate Level Conference: IEEE MIT URTC, 2019 | 2020
- 2 x Selected Presenter at Northwestern High School Project Showcase, 2018 | 2019

Leadership & Community:
- 1st place at Business Professionals of America (BPA) Nationals in Global Marketing, 2019
One team awarded first place among 30 teams at national level
- 2 x BPA National Qualifier, 2019 | 2020
Qualified for nationals in tech and marketing events
- 2 x Presidents Volunteer Service Gold Award, 2019 | 2020
Over 300 hours of community service

Computing:
- USA Computing Olympiad Silver Division, 2020
- Intel Excellence in Computer Science, 2019
Selected by Intel as top CS project in regional fair
- NCWIT Aspirations in Computing Northern Illinois Affiliate Winner, 2020
Award honors computing aspirations, achievements, leadership & academic performances
-BPA Nationals Top 18 in Computer Security, 2019

OBJECTIVE

Sahithi Ankireddy is a dedicated and ambitious high school student with a demonstrated passion for computer science applications in healthcare. As a student researcher, she has developed AI medical diagnostic tools and hopes to continue her computer science research passion in college. Sahithi has also worked to combat social issues affecting her community, where she led a mental health campaign and book drive for hospitalized children. She also tutors K-8th grade students in computer science. In addition, Sahithi is an active participant in Women in STEM organizations like Girls Who Code, NCWIT, and Girl Genius. In her free time, Sahithi trains in martial arts and enjoys cooking.

RESEARCH AND PUBLICATIONS

Computer Science:

Assistive Diagnostic Tool for Brain Tumor Detection and Segmentation using Computer Vision *09/2019 – 08/2020*
- Applied computer vison techniques and specifically a Mask R CNN segmentation model through transfer learning to detect and segment brain tumors
- Used Google Cloud Services for a 6 vCPUs and 60 GB memory Linux Server running Ubuntu to train the neural network

arXiv: https://arxiv.org/abs/2011.08185

A Novel Approach to the Diagnosis of Heart Disease Using Machine Learning and Deep Neural Networks *12/2018 – 05/2020*
- Developed an application for assistive heart disease diagnosis
- Utilized Google TensorFlow and scikit-learn to develop neural networks and machine learning models
- Applied various optimization and hyper parametrization techniques like the Grid Search algorithm to increase the accuracy prediction rate of heart disease

arXiv: https://arxiv.org/abs/2007.12998

Earth Science and Technology:

Correlation Between GPS Error Signals and Geomagnetic Activity *08/2017 – 06/2018*
- Investigated GPS errors and geomagnetic activity in the ionosphere to discover affected systems for industries relying heavily on geolocation devices

Northwestern Undergraduate Research and Arts Expo:
https://tinyurl.com/northwestern-expo-gps

EXPERIENCE

Youth Advocates for Change, *Leader* *08/2019 – Present*
- Created meaningful change through digital and in-person campaigns, where focuses have been on mental health, racial equality, and drug abuse prevention
- Held community discussions, led the *WellnessWednesday* mental health social media campaign, and started the *InterconnectED* Podcast.
- Currently, planning a racial equity online summit.

CompSci Kids, *Outreach Co-Lead and Leadership Team* *09/2018 – Present*
- Mentored K-8th graders in computer science, designed curriculum and activities for grade levels, organized guest speaker events, and created educational videos and online content

Science Olympiad, *Student Leader* *08/2017 – Present*
- Prepared event material, guided and mentored younger members for competitions, competed on Varsity Level at invites

Girl Genius, *Partnerships Manager* *6/2020 – Present*
- Found and contacted organizations for partnerships, followed up with partnerships in a timely manner, and brainstormed new workshop, panel and conference ideas

National Karate, *Trainee* *06/2017 – Present*
- Trained 4 times a week, helped younger belts with technique, attended and won first place at Chicago regional competitions for 4 years

University of Illinois at Chicago Girls Who Code *09/2019 – Present*
- Developed mapping and geolocation React Native mobile applications, used Amazon Web Services for cloud computing