

Sahithi Ankireddy

✉ sahithia14@gmail.com ☎ 2245089318 in [linkedin.com/in/sahithiankireddy](https://www.linkedin.com/in/sahithiankireddy) 🐙 github.com/sahithiankireddy14

Objective

Sahithi Ankireddy is a dedicated and ambitious high school student with a demonstrated passion for computer science and societal change. Since freshman year, Sahithi has attended national competitions for research, has won multiple awards, her papers have been published, and she has a great passion for STEM. Sahithi enjoys critical thinking, and she is in the Silver Division for the USA Computing Olympiad. She is self-driven and giving back to her community is very important to her. She is a two-time recipient of the President's Volunteer Service Gold Award and has over 200 hours of service. Sahithi has also worked to combat social issues affecting her community and continues to give back by mentoring students in CS. Sahithi also actively participates in Women in STEM organizations such as Girls Who Code and NCWIT. She has won the NCWIT Aspirations in Computing Award for the Northern Illinois Regional Affiliate. In her free time, Sahithi trains in martial arts and she plays badminton.

Education

James B. Conant High School

GPA: 3.974/4.000

SAT: 1540/1600 (ERW: 750, Math: 790)

08/2017 – Present
Hoffman Estates, IL

Relevant coursework: Mobile App Development, AP Computer Science A, AP Computer Science Principles, Multivariable Calculus, AP Calculus BC, AP Physics C, Accelerated Chemistry, Honors Biology

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

Activities

Junior Science and Humanities Symposia, Chicago Region Finalist

Selected to present research on assistive heart disease diagnosis and brain tumor detection tools at poster and paper session

03/2019 – Present

Illinois Junior Academy of Science

Presented research on assistive heart disease diagnosis and brain tumor detection tools in addition to the correlation between geomagnetic activity and GPS signals at regional and state fairs

03/2018 – Present

Youth Advocates for Change, Leader

Created meaningful change through digital and in-person campaigns, where past focuses have been on vaping and mental health. I have held community discussions, started a #WellnessWednesday social media campaign, and the InterconnectED Podcast. I also organized a book drive with over 1000 books for local hospitals.

08/2019 – Present

CompSci Kids, Outreach and Leadership Team

Mentored K-8th graders in CS, designed content for grade levels, organized speaker nights, and created educational videos and online curriculum

10/2018 – Present

Science Olympiad, Leader

Varsity Team; led team in Earth, Space & Inquiry events, trained younger members, competed at various invites, created materials & won medals.

08/2018 – Present

Business Professionals of America, National Winner

1st Place at Nationals; 2 time state champion; created 10pg paper & presentation; competed at regionals, state & nationals for tech and marketing events

08/2018 – Present

UIC Girls Who Code

Learned about mobile applications and cybersecurity; developed a mapping and rest stop tracker app using React Native

09/2019 – 04/2020

Google Code In

Completed tasks under TensorFlow organization; built auto-encoder model and used Keras Functional API; solved an advanced machine learning problem; won 3+ task completion prize

12/2019 – 01/2020

Martial Arts

Won 1st place in form, self defense & sparring at regional competitions for multiple years; trained three times a week; attended belt exams & competitions

08/2017 – Present

Girl Genius, Partnerships Manager

06/2020 – present

Collaborated with and contacted organizations for partnerships, followed up with partnerships in a timely manner, and brainstormed event ideas

Principal's Advisory Board

09/2018 – Present

Selected to be part of a group representing the voices of student body. Discussed action plans and ideas with principal

Research Projects**Assistive Diagnostic Tool for Brain Tumor Detection and Segmentation using Computer Vision**

09/2019 – 04/2020

Computer Vision was applied and specifically a Mask R CNN segmentation model was implemented through transfer learning. Used Google Cloud VM Services in order to train and validate the model.

A Novel Approach to the Diagnosis of Heart Disease Using Machine Learning and Deep Neural Networks

10/2018 – 05/2019

Used Google TensorFlow and scikit-learn to develop machine learning models and neural networks. Various optimization and hyper parametrization techniques were applied to increase the accuracy prediction rate of heart disease. At the end, an application was created for assisted heart disease diagnosis.


Correlation Between GPS Error Signals and Geomagnetic Activity

08/2017 – 05/2018

Investigated the correlation between GPS errors and geomagnetic activity in the ionosphere. Specifics of this correlation and the affected values/systems were discovered as well.

Publications**A Novel Approach to the Diagnosis of Heart Disease Using Machine Learning and Deep Neural Networks, arXiv**


07/2020

<https://arxiv.org/abs/2007.12998> 

Correlation Between GPS Error Signals and Geomagnetic Activity in the Ionosphere,

05/2018

Northwestern's Undergraduate Research and Arts Exposition Online Library

<https://expo.undergradresearch.northwestern.edu/presentations/2018/correlation-between-GPS-error-signals-and-geomagnetic-activity-in-the-ionosphere/> 

Skills**Research**

Writing scientific papers and presenting at poster and paper sessions

Artificial Intelligence

Machine Learning and Deep Learning

Python**Google TensorFlow**

Used Keras libraries to design algorithms

C++**Java****Honors/Awards**

Intel ISEF Finalist, Society for the Science and Public

05/2019

Best Paper Award at IEEE MIT Undergraduate Research Technology Conference,

10/2019

Institute of Electrical and Electronics Engineers

USA Computing Olympiad Silver Division

02/2020

Northern Illinois Affiliate Winner, NCWIT Aspirations in Computing

02/2020

1st Place at Nationals for Global Marketing Team, Business Professionals of America

05/2019

Top 18 at Nationals in Computer Security, Business Professionals of America

05/2019

Intel Excellence in Computer Science Award, Intel

03/2019

Illinois Junior Academy of Science Region 6 Special Award, American Statistical Association

03/2019

3 x Best In Category, Illinois Junior Academy of Science, 2018, 2019, 2020

2 x Selected to present research at Northwestern's Undergraduate Research and Arts Exposition, 2018, 2019

2 x President's Volunteer Service Gold Award,

Corporation for National and Community Service, 2019, 2020