SAHITHI ANKIREDDY

sankired@caltech.edu
sahithiankireddy14.github.io
https://www.linkedin.com/in/sahithiankireddy/

EDUCATION

California Institute of Technology
B.S. Computer Science & Business Economics Management
Pasadena, CA | Expected June 2025

JB Conant HS
UW GPA: 3.978/4.000
Richard C. Kolze Award Recipient
IL State Scholar
Hoffman Estates, IL | May 2021

SKILLS

Programming
Java • JavaScript • Python • C++ • Mathematica • HTML • CSS • LaTeX • Bash
Tools
Tensor Flow • Keras • Sci-Kit Learn • Docker • Unity • Android Studio
Other
Machine Learning • Cloud Computing • Data Science

HONORS AND AWARDS

Research Competitions:
- Best Paper Award at IEEE MIT URTC, 2019
- Intel ISEF Finalist, 2019
- 3 x Best in Category at Illinois Junior Academy of Science, 2018 | 2019 | 2020
- 2 x Junior Science and Humanities Symposia Chicago Region Finalist, 2019 | 2020

Computing:
- ACM/CSTA Cutler-Bell Prize in High School Computing, 2021
- USA Computing Olympiad Silver Division, 2020
- NCWIT AiC 2021 National and 2020 Regional Awardee
- Intel Excellence in Computer Science, 2019
- Business Professionals of America (BPA) Nationals Top 18 in Computer Security, 2019

Business & Community:
- 1st place at BPA Nationals in Global Marketing in 2019 & 3rd place in 2021
- 3 x BPA National Qualifier, 2019 | 2020 | 2021
- 2 x Presidents Volunteer Service Gold Award, 2019 | 2020

EXPERIENCE

University of Chicago | Research Assistant *June - August 2021*
- On the Chameleon Cloud (NSF-funded cloud computing testbed) team, working the CHI@Edge testbed, which provides support for edge computing research.
- Developed a cloud-based pipeline for driving autonomous cars with CHI@Edge and Docker
- Trained various machine learning self-driving car algorithms using cloud infrastructure for real-time testing.

Google | CSSI: Online Participant *July - August 2021*
- Participated in a 4-week intensive computer science summer program for high-achieving students
- Completed a sports tracker project based on JavaScript and Firebase curriculum taught by Google engineers
- Delivered a collaborative final project presentation that included a live demonstration to Google employees and community leaders

Ceural | Research Intern *June – August 2020*
- Co-authored a research review paper on brain machine interfaces for neurorehabilitation
- Accepted to and published in Young Scientists Journal

UIC Girls Who Code | Member *September 2019 – May 2021*
- Developed mapping and geolocation React Native mobile applications and used Amazon Web Services for cloud computing

PROJECTS

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

COURSEWORK

Upcoming Caltech Courses: Calculus of One and Several Variables and Linear Algebra • Introduction to CS Research
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 Predictions
UIUC Course: Multivariable Calculus
Relevant HS Courses: AP CS A • AP CS Principles • AP Physics C