Nikhil Kalidasu

Data Scientist

Polymathic Data Scientist with experience ranging from aerospace to microbiology to application development. Seeking experience with real-world research and problem solving in healthcare and aerospace.

📍 Austin, TX, USA

✉ srikarnikhil.kalidasu@gmail.com

📞 5714359126

🌐 nik875.github.io

TECHNICAL SKILLS

Python
NumPy, SciPy, Pandas, TensorFlow

Java
Object-Oriented Programming, Polymorphism

C++
Robotics, Microcontrollers

Julia
Functional Programming

Natural Language Processing
Transformer, LSTM, Sentiment Analysis

Image Processing
ConvNet Classifier, GAN, Vision Transformer

SOFT SKILLS

Work Ethic

Leadership

Scientific Writing

Communication

PROJECTS

Independent Research (August 26, 2022 - Present)
Representational learning for DNA sequence encoding, comparison, and visualization.

Trained a Transformer-based deep neural network to represent DNA sequences as 2D points, opening the door to beautiful and informative genomics dataset visualization.

INTERESTS

Hiking

NVIDIA GTC

Doing Cool Things with Computers

Contributing to Open Source

WORK EXPERIENCE

TJ Space Program (August 26, 2018 - May 31, 2022)
Project Manager

- Worked four years on TJ REVERB, a 2U cube satellite built without using a satellite kit designed for lanuch into Low-Earth Orbit.
- Resurrected program after COVID pandemic as Project Manager by reviving interest and spearheading push for completion.
- Personally wrote over 60% of satellite software, and carried out code reviews making use of Issues and Pull Requests on GitHub to coordinate work between a large software team.
- Initiated club rebrand and increased club size by over 30% by starting two new missions and reaching out to other students.

Key Achievement: Programmed, assembled, tested, and launched TJ REVERB to orbit, completing a project that had been delayed for 6 years.

🔗 activities.tjhsst.edu/cubesat

Housekeeping Payment Solutions (June 12, 2020 - August 26, 2020)
Backend Intern

- Worked on a large team developing a payment app for hotel housekeepers.

Key Achievement: Learned Django and designed database APIs.

EDUCATION

University of Texas at Austin (August 22, 2022 - Present)
BS, Computer Science

🔗 https://www.utexas.edu/

Thomas Jefferson High School for Science and Technology (August 26, 2018 - May 31, 2022)
Advanced Diploma

🔗 https://tjhsst.fcps.edu/

AP Computer Science, Microbial Genomics & Bioinformatics

PUBLICATIONS

Identifying and Overcoming Challenges in High School CubeSat Programs (August 06, 2022)
Small Satellite Conference

Recommendations for CubeSat program organization from interviews of 6 High School CubeSat programs in America and our personal experiences at TJ Space Program.

🔗 https://smallsat.org/

Evaluation and Methodology of Python Flight Software on Linux Based Architecture with an Iridium Radio for CubeSats
IEEE Xplore

Upcoming paper summarizing and evaluating our satellite's hardware and software design choices.

TJREVERB: A High School CubeSat Story
AeroConf 2023

Upcoming paper summarizing the challenges we faced as a high school CubeSat program and the ways we overcame them.