Nikhil Kalidasu

Data Scientist

Austin, TX, USA

srikarnikhil.kalidasu@gmail.com

nik875.github.io

TECHNICAL SKILLS

Python

Java

C/C++

Linux

SOFT SKILLS

Work Ethic

Leadership

Scientific Writing

Communication

PROJECTS

Independent Research (2022 - Present)

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

https://nik875.github.io/projects/senior-research.html

Mood Analysis of Song Lyrics (2023)

Used NLP to predict the moods of songs based solely on their lyrics.

https://nik875.github.io/2023/03/16/language-models.html

INTERESTS

Contributing to Open Source

Repurposing Old Electronics

Hopping Linux Distributions

Hiking and Rock Climbing

Polymathic Data Scientist with experience ranging from aerospace to microbiology to NLP. Seeking experience with real-world research and problem solving in aerospace, computational biology, and systems engineering.

WORK EXPERIENCE

Texas Rocket Engineering Lab (2022 - Present)

Systems Integration Lead

- Working to launch the first university-developed liquid-fuel bipropellant rocket capable of reaching space.
- Performed a full independent flight software audit to bring knowledge of software systems into an engineering-focused team.
- Designed a CAD version control system using git that saved significant costs on a potential PLM system.

Key Achievements: Worked with engineers from many different backgrounds to design an adequate system of roll control after actuated fins were cut from the project.

https://www.texasrocketlab.com/

TJ Space (2018 - 2022)

Engineering Lead

- Worked four years on TJ REVERB, a 2U cube satellite built without using a satellite kit, designed for lanuch into Low-Earth Orbit.
- Personally wrote over 60% of satellite software, and carried out code reviews making use of Issues and Pull Requests on GitHub. Coordinated work between a large development team.
- Initiated club rebrand and increased club size by over 30% by starting two new missions and investing in outreach programs.

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

activities.tjhsst.edu/cubesat

EDIT ML Internship (2021 - 2021)

ML Intern

- Worked on a small team to unmask tissue slide images using GANs, GNNs, and CNNs.

Key Achievement: Learned the basics of applied machine learning and computational pathology.

EDUCATION

University of Texas at Austin (2022 - Present)

BS, Computer Science

Thomas Jefferson High School for Science and Technology (2018 - 2022)

Advanced Diploma

PUBLICATIONS

Identifying and Overcoming Challenges in High School CubeSat Programs (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/