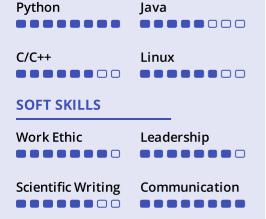


# Nikhil Kalidasu

Data Scientist

- Austin, TX, USA
- nik875.github.io

## **TECHNICAL SKILLS**



# **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

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

https://nik875.github.io/2023/03/1 6/language-models.html

# **INTERESTS**

Distributions

Contributing to Repurposing Old Electronics

Hopping Linux 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) (2018 - Present) (2022 - Advanced Diploma (2018 - 2022) (2018 - 2022)

#### **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/