

DIYA KINI

Austin, TX | (512) 944-3923 | [Email](#) | [Portfolio](#) | [GitHub](#)

EDUCATION

University of Michigan

Ann Arbor, MI

B.S.E in Computer Science

2023 - 2026

- Academic Honors: Michigander Scholar, Dean's Honor List
- Relevant Coursework: Data Structures & Algorithms, Programming & Data Structures, Human-Robot Systems, Introduction to Artificial Intelligence, Discrete Mathematics, Computational Linear Algebra, Multivariable and Vector Calculus, Microprocessors and Toys

PROJECTS

Foreign Relations (Python)

July 2024

- Used time-series analysis and LSTMs to predict EUR/USD exchange rate from existing data in Yahoo Finance
- Incorporated news sentiments from past news articles to improve forecast accuracy through NLP techniques and Tensorflow by analyzing the emotional tone of words in the text discussing historical conflicts between nations

ML Robot Tour (Python)

Dec 2023

- Integrated vision-based navigation system, enabling adaptive robot pathfinding upon numerical cue detection
- Optimized route selection of MBot Omni's obstacle avoidance through SLAM and BFS
- Trained 3 ML numerical recognition models (KNN, Linear Classifier, Neural Network) using SciKit Learn and the MNIST database

EXPERIENCE

University of Michigan Robotics Department

Ann Arbor, MI

Research Assistant

Jan 2024 - Present

- Led the development of a fully autonomous robotic system utilizing computer vision algorithms within the OpenCV framework and Python
- Specialized in improving the Jetson Nano's stereo vision implementation within the MBot ecosystem used in graduate courses through ORB SLAM

University of Michigan College of Engineering

Ann Arbor, MI

Computational Linear Algebra Instructional Aide

Jan 2024 - Present

- Executed matrix and vector operations and linear transformations to optimize LiDAR data interpretations in robotic navigation tasks
- Taught 200 students the application of ML concepts, including linear regression, to develop predictive models for robotic systems, enhancing pattern recognition and decision-making processes
- Explained feedback control algorithms for dynamical systems, such as balancing a Segway robot, leveraging linear algebra and Julia programming for improved system stability and performance

Berry Consultants

Austin, TX

Data Science Intern

June 2022 - Aug 2022

- Analyzed the optimal length of time a novel gene therapy would keep hemophilia patients at a safe level of clotting through the R programming language
- Worked with a team of 3 data scientists to investigate the relationship between biomarkers of the gut biome and clinical outcomes for an innovative treatment for C-difficile infections
- Assisted in the FDA approval of 2 treatments by developing plots of drug efficiency and safety alongside PhD Statisticians

SKILLS

Licenses & Certifications:

TensorFlow Professional Developer Certificate (DeepLearning.AI),
Quantitative Modeling for Analysts Specialization (Wharton Online)

Programming Languages & Computer Skills:

Python, C++, R, Java, Solidworks, Julia, OpenCV, MATLAB, Verilog,
Git

Tools & Machinery:

CNC, Mill, Lathe

Extra skills:

Spanish, Leadership, Public Speaking