

# Nishil Faldu

Software Engineering Intern at Digital Scholarship Center

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## Relevant Experience

### Software Engineering Intern @ DSC

January 2022 - April 2022 // Cincinnati, OH

- Architected and implemented an AI-powered fullstack web application, which helps user compose poetry by entering first few lines
- Contributed extensively to modelofmodels.io, a platform for collaborative language research and teaching, to create new learning outcomes
- Proposed and implemented a scalable solution for visualization of large text datasets with THREE.js - text vectorization with BERT embeddings, categorization with LDA

### Computer Vision Research Intern @ IRAS

August 2021 - November 2021 // Cincinnati, OH

- Aided a graduate student to develop an autonomous robot that can open doors and find nearest electrical outlet to recharge
- Augmented, cleaned, processed, and labeled images with a Python Script to generalize to situations in real life during door and plug localization
- Coordinated with a professor to train and fine-tune different versions of YOLO model using PyTorch and TensorFlow

### Modeling and Simulation Intern @ Procter and Gamble

May 2021 - August 2021 // Cincinnati, OH

- Modeled and simulated one of the automatic plants of P&G with Tecnomatix - Plant Simulation software - increasing production by 10%
- Analyzed and visualized automated guided vehicles data through excel charts to optimize production systems and logistical operations
- Improved logic for 52 AGVs to control their navigation, traffic management, and charging reducing congestion by 20%

### Machine Learning Intern @ DSC

January 2021 - December 2021 // Cincinnati, OH

- Developed and maintained code for cleaning and pre-processing text datasets primarily using NLTK and Gensim
- Built and deployed a Vader Sentiment, custom TensorFlow Sentiment model on AWS EC2 instance using TensorFlow Serving server and Flask application
- Generated embeddings of text datasets with BERT Tokenizer and applied unsupervised ML algorithms like KMeans, UMAP, PCA, TSNE

## Involvement

### Resident Advisor @ University of Cincinnati

January 2022 - Present // Cincinnati, OH

### President @ Google Developer Student Club

July 2021 - April 2022 // Cincinnati, OH

### Social Media Chair @ IEEE

April 2021 - April 2022 // Cincinnati, OH

### Outreach Chair @ International Partners and Leaders

April 2021 - April 2022 // Cincinnati, OH

### Web Developer @ RevolutionUC Hackathon

September 2021 - February 2022 // Cincinnati, OH

### Marketing Director @ MakeUC Hackathon

June 2021 - October 2021 // Cincinnati, OH

## Skills

### Programming Languages

Python, C++, JavaScript (ES6), HTML, CSS, Bash, Java, MATLAB, Octave, LabVIEW, SQL, R

### Libraries and Frameworks

React, jQuery, Bootstrap, Node.js, Express, Flask, Django, TensorFlow, ScikitLearn, NLTK, Gensim, Numpy, Pandas, Matplotlib

### Tools and Platforms

Git, AWS, Netlify, Heroku, Firebase, MongoDB, Colab, Nginx, UWSGI

## Education

### B.S. Computer Science

August 2019 - Present // Cincinnati, OH

- University of Cincinnati
- GPA 4.0/4.0
- Mantei/Mae Award, Dean's List
- International Outreach & Global Scholar

## Projects

### React Dashboard

Minimal web app for visualizing RevolutionUC Hackathon statistics. View live, yearly, and trends data on a clean dashboard for data-driven marketing

### Campaign Website

Netflix-themed presidential campaign website for University of Cincinnati that lets users see platform points explained in form of videos

### Save The Roadster

A C++ game where you "save" Elon Musk's prized Tesla Roadster from being sent into space from your Command Line Interface

### In/Site

An Electron app that compares user-input with a "truth" database of COVID facts and states whether the input statement is true or false, with an embedding visualization

## Interests

Traveling, reading, hiking, cafe-exploring, volleyball, squash