

Prannav Shankar

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EDUCATION

Duke University

Durham, NC

Biomedical Engineering (B.S.E) and Computer Science (B.S)

August 2022 – May 2026

- GPA: 3.89 (Dean's List with Distinction)
- Relevant Coursework: Math 218: Linear Algebra, Math 219: Multivariable Calculus, Math 353: Differential Equations, CS 201: Data Structures and Algorithms, CS 216: Everything Data, CS 250: Computer Architecture, ECE 110: Fundamentals of Electrical and Computer Engineering, Phys 152: Electricity and Magnetism

EXPERIENCE

Machine Learning Researcher

Sep. 2023 – Present

Duke University

Durham, NC

- Working on implementation of Velorama, a gene regulatory network inference tool that uses RNA velocity to reveal causal links between transcription factors and their target genes
- Design of graph neural networks and optimal learning through PyTorch for analyzing multimodal single-cell data

ML and AI Intern

Jul. 2023 – Aug. 2023

SureStart MIT FutureMakers

Remote

- Created and implemented convolutional neural networks (CNNs), multilayer perceptrons (MLPs), and other deep learning models in TensorFlow
- Served as full stack developer on Perspectify, which takes current events, summarizes major points, and recommends articles with alternative viewpoints
- Incorporated OpenAI API and Google API to pull information through Django back-end

BluePrism Automation Intern

Jul. 2021 – Aug. 2021

Lateetud

Remote

- Designed BluePrism protocol for automating project feasibility analysis, later implemented by Lateetud
- Implemented protocol for extracting Excel data, computing target statistics, and emailing summary to target user
- Presented final product to company CEO and board at end of summer

PROJECTS

Gmail Diary | *Python, SQL*

Jan. 2024 – Feb. 2024

- Implemented program that sends daily emails asking for user ratings on a variety of factors using Gmail API
- Extracts information from reply to email and stores in database using Gmail API and SQL
- Uses stored data to calculate summary statistics and send a weekly summary email to the user about their week

Personal Website | *HTML/CSS, JavaScript*

Jan. 2024 – Feb. 2024

- Designed and built personal portfolio site using HTML/CSS and JavaScript, highlighting skills and projects
- Implemented desktop and mobile phone compatibility, with collapsible hamburger menu

Perspectify | *Python, Django, HTML/CSS*

Aug. 2023 – Sep. 2023

- Developed a full-stack web application using Django serving OpenAI and Google API with HTML/CSS front-end
- Implemented BeautifulSoup4 to scrape text from web articles and feed text to OpenAI API
- Implemented OpenAI API to clearly and concisely summarize articles and feed search terms to Google API
- Used Google API to query related articles and provide additional links for further research

Sentiment and AQI Correlation | *Python, Numpy, Pandas, Seaborn, Textblob*

Jan. 2023 – May 2023

- Conducted correlational analysis on climate conditions and sentiment in tweets
- Used Pandas and Numpy to extract locational data from Tweet database
- Indexed relative locations in an AQI database with levels of CO2, NO2 and SO2
- Calculated sentiment value of Tweet using Textblob and plotted correlation with AQI using Seaborn

SKILLS AND INTERESTS

Languages: Java, Python, C, JavaScript, HTML, CSS, SQL, MATLAB

Frameworks and Libraries: Django, PyTorch, TensorFlow, Numpy, Pandas, Keras, SQLite

Interests: Working Out, Tennis, Basketball, Cooking, Drone Photography, Hiking, Hip-Hop, Rubik's Cubing