

Dhruv Desai

An undergraduate computer science aspirant. Diligent, detail-oriented and dedicated to the pursuit of stellar educational opportunities. Analytical thinker and problem solver, quick to master new avenues and passionate about academic excellence coupled with professional versatility. Poised to conquer new frontiers, foster genuine connections, and be a dynamic professional in a changing world.

EXPERIENCE

Math Learning Centre at UW-Madison, WI — Math Tutor Sep 2023 - Present
(*Linear Algebra | Pre-Calculus | Calculus | Small Group Tutoring*)

- ❖ Peer Mentor: Conducted structured tutoring sessions, adapting content as needed and encouraging regular attendance for Math 171 (Algebra and Trigonometry 1)
- ❖ Proof Table Tutor: Facilitated group learning in math courses 300+, offering homework support.
- ❖ Float-Drop In Tutor: Provided homework assistance in lab settings for precalculus and calculus courses.

Vadict Innovations Pvt.ltd , Vadodara, India — Intern June - July 2023
(*Flutter | Provider | MVC*)

- ❖ Conceptualized and crafted a mobile application using Flutter framework.
- ❖ Tailored the mobile application specifically for the company's needs.
- ❖ Successfully transformed the pre-existing web application into a mobile counterpart.
- ❖ Preserved a consistent look, feel, and user interface (UI) experience.

Vadict Innovations Pvt.ltd, Vadodara, India — Intern April - May 2022
(*Raspberry Pi | Apache Camel | Active MQ | MQTT | Spring Boot | JMS*)

- ❖ Crafted a comprehensive flow chart.
- ❖ Connected dairy industry sensors to the cloud via Raspberry Pi and gateways.
- ❖ Implemented protocols for efficient data transfer.
- ❖ Processed data on a Spring Boot web app.

EDUCATION

University of Wisconsin - Madison, WI — Computer Science BS September 2022 - May 2026
❖ 4.0 GPA (Up to Semester 2)

PROJECTS

TeeFusion in Next.js — May 2023
(*JavaScript | Next.js | THREE.js | React | Python | Flask | StableDiffusion*)

- ❖ Built an interactive product landing page featuring a captivating 3D t-shirt model using THREE.js.
- ❖ Seamlessly integrated customizable t-shirt features and AI-generated options using a Flask application on a Google Colab Server with StableDiffusion's text-to-image AI.

Spotify Clone in Next.js — June 2023
(*JavaScript | Next.js | React | WebApp | HTML | CSS | Spotify Web Api*)

- ❖ Created a feature-rich Spotify clone
- ❖ Utilized Next.js, NextAuth, and Spotify API
- ❖ Successfully replicated the original platform's functionality and user experience

Cosmic Odyssey in Java — March 2023
(*Java | GUI | Graph | GNU Make | Dijkstra | Game Development*)

- ❖ Designed an adventure game featuring StarShip piloting through uncharted space.
- ❖ Implemented Dijkstra's algorithm for efficient navigation.
- ❖ Incorporated mechanics for planet discovery, fuel management, and coin collection.

RedBlackTree Quiz in Java — March 2023
(*Java | Text-App | RedBlackTree | Quiz*)

- ❖ Designed an interactive text-based quiz application.
- ❖ Engaged players in a quiz format for Red-Black Tree insertions and removals.
- ❖ Enhanced understanding of Red-Black Tree concepts through gamified learning.

Spotify Sort in Java — March 2023
(*Java | Text-App | RedBlackTree | CSV Parsing | GNU Make*)

- ❖ Developed a Spotify playlist management app.
- ❖ Enabled CSV file import for playlist manipulation.
- ❖ Implemented Red-Black Tree storage for sorting, updating, and editing songs with unique titles.

BinaryECE QuizMaster in Java — February 2023
(*Java | Processing | GUI | Binary Arithmetic | Quiz*)

- ❖ Developed a user-friendly GUI quiz for ECE 252 students.
- ❖ Tailored quiz questions to cover binary-to-decimal conversions and IEEE notation.
- ❖ Enhanced understanding of course concepts through interactive learning.

Interactive Data Structures Website in Java — December 2022
(*SpringBoot | Vaadin | Arraylist | Hashmaps*)

- ❖ Developed a website showcasing data structures like HashMaps and ArrayLists.
- ❖ Implemented input fields for dynamically populating these data structures.
- ❖ Created an interactive platform for exploring and manipulating data structures on the web.

Sorting Algorithm Visualizer in Java — October 2022
(*Java | Text-App | MergeSort | QuickSort | SelectionSort | InsertionSort*)

- ❖ Developed a command-line Java application.
- ❖ Created visualizations for popular sorting algorithms.
- ❖ Enabled users to observe and understand sorting techniques through dynamic visualizations.

Earthquake Display System in Java — July 2022
(*Java | Processing | PApplet | Shapes, Text, and Images in PApplet*)

- ❖ Created a GUI system for Processing applets.
- ❖ Implemented CSV file reading and parsing capabilities.
- ❖ Effectively represented data using colors, sizes, positions, and shapes to visualize different keys and quantitative information.

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LANGUAGES

- ❖ Java
- ❖ Python
- ❖ C
- ❖ JavaScript

TECHNICAL SKILLS

Web Development	App Development-
❖ HTML - CSS	❖ Flutter
❖ Node.js	❖ JavaFX
❖ React	❖ Tools & Frameworks-
❖ Next.js	❖ SpringBoot
❖ Vue.js	❖ Linux CLI
❖ Flask	❖ GCP
❖ Django	❖ Apache
❖ React	❖ Vertex AI
❖ PostgreSQL	❖ Google Colab
❖ MongoDB	❖ GitHub
❖ MySQL	❖ TensorFlow
❖ Prisma	❖ PyTorch
❖ Three.js	

CERTIFICATES

Generative AI Learning Path-
Google Qwiklabs, INP
Machine Learning Engineer Path-
Google Qwiklabs, INP
Flutter Essential Training-
LinkedInLearning, 100%
Learning Spring with Spring Boot-
LinkedInLearning, 100%
Relational Database Essential Training-
LinkedInLearning, 100%
Interaction Design Flow-
LinkedInLearning, 100%
Intro to Graphic Design Concepts-
LinkedInLearning, 100%
Object Oriented Programming In Java-
Duke University & UC San Diego,
Coursera, 100%
Python For Everybody-
University of Michigan, Coursera, 100%

HONORS AND ACHIEVEMENTS

Dean's List for Spring 2023 -
UW Madison (2023)
Dean's List for Fall 2022 -
UW Madison (2022)
1st place in "Math Maniacs" -
Navrachana Sama (2022)
Techno Geek Award in "Codes Cook" -
Laxmipat Singhan Academy (2022)

LEADERSHIP POSITIONS

Head Boy, Student Council, 2021-2022
Vice Head Boy, Student Council,
2020-2021
Junior Prefect, 2015-2016