

Vedant Modi

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EDUCATION

Tufts University

Aug. 2022 – May 2026

GPA 3.85, BS Computer Science, BS Mathematics

Somerville, MA

Significant Coursework: Algorithms, Network security, Machine structure, Assembly programming

Data structures, Multivariable calculus, Linear algebra, Mathematical proofs, Climate science, Political cinema

EXPERIENCE

Tufts University, Department of Computer Science

May 2023 – Present

Course Assistant for Data Structures

Somerville, MA

- Contribute to course infrastructure—autograding software, unit tests, organizing TA grading, and project solutions
- Host office hours aiding students in course assignments and explaining lecture topics
- Deliver comprehensive lectures about topics and reinforce concepts via coding exercises for weekly 30+ student lab
- Grade student assignments by studying submissions for functionality, testing, and course coding standards

Tufts JumboCode

September 2023 – Present

Full-Stack Developer

Somerville, MA

- Develop a full-stack web application app benefiting the Emerald Necklace Conservancy educating visitors on preservation
- Cultivate an interest in Boston's historical parks by creating an engaging product using React, MongoDB, Bun
- Practice team-based coding powered by Git and GitHub collaboration tools

Texas Heart Institute

May 2021 – Aug 2021

Visual Communications Intern

Houston, TX

- Designed graphics and created animations representing cardiological research for publicity
- Interviewed for animation work by the *Houston Chronicle*

Carnegie Theatre Company

Aug. 2018 – May 2022

Webmaster, Media Designer

Houston, TX

- Maintained website, social media, ticket sales, and production marketing graphics.
- Designed live projections, edited videos, and rigged lights for productions.
- Recognized by the International Thespian Society for work on theatrical marketing.

RELEVANT PROJECTS

World Clock | JavaScript, HTML, CSS

Jul. – Aug. 2023

- Created a web application showing the time of chosen cities, with a helpful interactive map to aid in visualization
- Designed using Maptiler and OpenStreetMap for map, and modeled UI with Figma
- Published application to personal website with custom autocomplete search bar and tracked development with Git

vfl | C, Makefile, Python, Bash

Oct. 2023 – Feb. 2024

- Authored a program that reads/writes binary files representing flight itineraries utilizing bitmasking principles
- Wrote a collection of Python modules that aid the compression, like quantizing timezones, or finding the UTC offset of an airport, given its code

TECHNICAL SKILLS

Programming Languages: C/C++, Python, x86-64 Assembly, JavaScript, TypeScript, HTML/CSS, R, SQL, LaTeX

Frameworks and Environments: React, React Native, Node.js, MongoDB, Bun

Technical Topics: Software testing, object-oriented design, encrypted network programming, machine arithmetic, memory hierarchy (especially cache structures), performance analytics, data structures, algorithms, compilers

Developer Tools: Linux/UNIX terminal, shell scripting, Git/GitHub-assisted development, GCC, Makefile, Figma

JavaScript APIs: Mapping APIs (e.g. MapBox, Maplibre, LeafletJS, OpenStreetMap, qGIS)

Python Modules: pandas, matplotlib, sys, select, socket, tz

Spoken Languages: Proficiency in English, Hindi, Spanish, and French

Media: Droneography, Photoshop, Lightroom, After Effects, Davinci Resolve Studio, Premiere Pro, InDesign, Wordpress

Travel: Hiking mountains, traveling to novel destinations, searching for amazing flight deals

Standards: Expert in recalling IATA airport codes, ISO country codes, and timezones