Satvik Reddy

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I am a full stack web developer and High schooler from the San Francisco Bay Area. Currently, I am 14 years old, and I have been programming for 6 years.

Education

Aragon High school

2020 – current

Skills

Programming Languages

Fluent In: Typescript, Python, JavaScript, Java, HTML, CSS, Bash, and Go

Proficient In: C++, C, SQL, and PowerShell

Technologies

AWS EC2, S3, Elastic Beanstalk, RDS, Firebase, Git, Docker, docker-compose, PostgreSQL, SQLite, MongoDB, Nginx, Windows, Linux, Unix, Raspberry Pi, IDEs/Debuggers, Visual Studio Code, Vim

Experience/Events

FRC Robotics Team | Programmer

August 2020 – Current

I have been working as a programmer for the Aragon High School FRC Robotics Team for about six months. I work on a team of six programmers, and we use Java and the WPILib library to program the robot. We also collaborate closely with a team of electrical engineers as a part of our work.

HackDefy Hackathon | Participant

August 2020 | Online

At the HackDefy Hackathon, my team and I created a website that would help students with limited educational resources with spelling and handwriting. Our website was a Flask webserver, and we used JavaScript and CSS on the site as well. We also built and trained a machine learning model used to convert students' writing to text with TensorFlow.

DVHacks ||| | Participant

March 2021 | Online

At the Third Dougherty Valley Hackathon, my team and I built an automatic music transcriber to help beginner music students learn music. Our website served via a Flask webserver. On our website, users

would upload music in the form of mp3, which would be converted to the MIDI file format using a machine learning model built with Pytorch. We would then save the midi in the form of a PDF, which was then uploaded to an AWS S3 bucket, before being sent to the user.

Projects

Homework Help

Node.js, Next.js, React, Typescript, MongoDB, AWS S3

This project is a platform made for students to get help on homework and assignments. Students can share questions, answer questions, and give feedback. The backend is a REST API built with Node.js, Express.js, and Typescript. I used MongoDB to store data, and Redis to store JWT tokens. The frontend was built with React, and Next.js. The server and the database were hosted on an AWS EC2 instance, the Next.js website was hosted on Vercel, and user uploaded images were stored on AWS S3. GitHub Link: https://github.com/SatvikR/homework-help

Cyan DB

Go

This project is a persistent key-value database inspired by Redis, written in Go. The database uses algorithms I wrote to serialize, deserialize, query, and insert data. The server receives database commands in the form of JSON objects sent over WebSockets. I also wrote an interactive shell that serves as a client for the database. GitHub Link: https://github.com/SatvikR/cyandb

Lisolver

Flask, Python, Next.js, React, Typescript, Sympy

This project is an open-source equation solver and simplifier, built to help students with their math homework. The backend is a REST API written in Python using the Flask framework. The equations are evaluated using the Sympy library. The frontend is a Next.js application written in Typescript. GitHub Link: https://github.com/SatvikR/lisolver

More projects available on my GitHub

Personal Achievements

- Showcased my projects to a group of executives, including the CTO, at Macy's Tech
- Auditioned for and joined the Jazz Ensemble at my high school
- Obtained a 1300 rating in Chess
- Obtained a 1200 USATT (USA Table Tennis) rating
- Solved a Rubik's cube in under 15 seconds in an official competition (My WCA Profile)

Other Fun Activities/Interests

Music, Video Gaming, Chess, Table Tennis, and Technology in general.