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 – present
San Mateo, CA
GPA: 4.0

Skills

Programming Languages

Fluent — Typescript, Python, JavaScript, Java, HTML, CSS, Bash, Go
Proficient — C++, C, SQL, 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

FRC Robotics Team, *Programmer* Aragon High School
Aug 2020 - Present

- Designed and built software to remotely control the robot for the Aragon High School FRC Robotics Team
- Collaborated with six programmers to program the robot using **Java** and the **WPILib** library
- Implemented **computer vision** code using the Limelight camera
- Coordinated closely with a team of electrical engineers

HackDefy Hackathon, *Participant* Online
August 2020

- Created a website to help students with limited educational resources to master spelling and handwriting
- Collaborated with two other team members to build and train a machine learning model to convert students' writing to text with **TensorFlow**
- Backend was implemented using a **Flask** webserver
  Frontend used **JavaScript** and **CSS** to add extra functionality and styling

DVHacks III, *Participant* Online
March 2021

- Built an automatic music transcriber to help beginner music students learn music
- Collaborated with two other team members to create a **Flask** webserver
- Built and trained a machine learning model using **Pytorch** that converts user uploaded music to MIDI files
- Converted MIDI files to PDF before uploading the files to **AWS S3** and sending them to the user

Projects

Homework Help

GitHub Project Link

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

- Built a platform for students to get help on homework and school assignments by allowing them to share and answer questions and give feedback
- Backend is a REST API build with Node.js, Express.js, and Typescript
- Used MongoDB to store data and Redis to store JWT tokens
- Frontend was built with React and Next.js
- Server and database hosted on an AWS EC2 instance, Next.js website hosted on Vercel, and user uploaded images stored on AWS S3

Cyan DB

GitHub Project Link

Go, WebSockets

- Implemented a lightweight persistent key-value database inspired by Redis in Go
- Designed algorithms to serialize, deserialize, query, and insert data
- Server receives database commands in the form of JSON objects sent over WebSockets
- Wrote an interactive shell that serves as a client for the database

Lisolver

GitHub Project Link

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

- Built an open-source equation solver and simplifier used to help students with their math homework
- Equations are evaluated using the Sympy library
- Backend is a REST API written in Python using the Flask framework
- Frontend is a Next.js application written in Typescript

Achievements

- Showcased my projects to a group of executives, including the CTO, at Macy's Tech
- Placed first in TheCoderGames, a nation wide computer science competition hosted by theCoderSchool
- Auditioned for and selected to play for Aragon High School Jazz Ensemble
- 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)

Interests and Hobbies

Jazz Music, Video Gaming, Chess, Table Tennis.