# 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 San Mateo, CA GPA: 4.0 (UW) 2020 – present

## **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

- Collaborate with six programmers using Java and WPILib library to program robot
- Coordinate closely with team of electrical engineers

#### HackDefy Hackathon, Participant

Online

August 2020

- Created website served via a Flask webserver to help students with limited educational resources with spelling and handwriting
- Collaborated with team members to built and train a machine learning model to convert students' writing to text with TensorFlow
- Worked with JavaScript and CSS

#### **DVHacks III**, Participant

Online

March 2021

- Collaborated with team members to build an automatic music transcriber to help beginner music students learn music; website served via a Flask webserver
- Machine learning model build with Pytorch converts user uploaded mp3 formatted music to MIDI file format
- MIDI file saved as PDF and uploaded to an AWS S3 bucket before being sent to user

# **Projects**

# Homework Help

GitHub Project Link

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

- Assist student users 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
- Worked with 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

- Designed algorithms to serialize, deserialize, query, and insert data to be used by database
- 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
- Project is a persistent key-value database inspired by Redis, written in Go

#### Lisolver

## GitHub Project Link

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

- Open-source equation solver and simplifier, built 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

# **Personal Achievements**

- Showcased my projects to a group of executives, including the CTO, at Macy's Tech
- 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.