

# Saurabh Totey Résumé

• Website: SaurabhTotey.com • Email: SaurabhTotey@gmail.com • Phone: 1+ (720) 648-2674 • GitHub: SaurabhTotey

## Education

2019 - 2023

### University of Colorado at Boulder

Physics (BA) and Computer Science (BS)

Minor in Math

GPA: 3.913

- President Joseph A. Sewall Esteemed Scholar Award
- Engineering Merit Scholarship

2015 - 2019

### Fairview High School

High School Diploma

International Baccalaureate Diploma

GPA: 3.9 unweighted, 4.75 weighted

- Magna Cum Laude
- National Merit Commendationalist
- National Honor Society Member

## Experience

May 2018 - Present

### PhET Simulations

Student Developer

- Currently write JavaScript code to develop educational, scientific simulations for use on browsers.
- Programming work includes reading others' code, writing code directly for simulations, writing code to package libraries, and writing and fixing common code to add new features, fix memory leaks, and improve performance.
- Contributed major portions of code for the Blackbody Spectrum, Curve Fitting, and Number Line Integers simulations.

September 2016 - August 2019

### Kumon of Lafayette

Student Assistant

- Taught students various levels of reading and math. Tasks included teaching students how to read, analyze passages in literature, count, and do basic calculus.
- Managed center necessities such as cleaning tables and sharpening pencils.

## Projects

### Portfolio Website

<https://www.github.com/SaurabhTotey/Portfolio-Website>

A portfolio website that has a large emphasis on simplicity and accessibility. The website is an attempt to display "personal flavor" while also being similar in appearance to a near-pure HTML website. The largest design constraint is that the website is static. Visible at SaurabhTotey.com.

*React Accessibility JavaScript HTML5 CSS3*

### Code Kata Snek

<https://github.com/FHSCodeClub/Code-Kata-Snek>

A backend with an API for a game of multiplayer turn-based snake (hence dubbed "snek"). Allows individual players or teams to control their own snek that dies when it runs into any non-apple tile. Sneks can eat deterministically-placed apples to grow and make it easier to kill other sneks. A snek's score starts at 0, and has its length added to its score every turn that it is alive. Each turn, a snek can move forward, left, or right, and the snek is controlled with API calls from each individual/team. This snek game API was made for Fairview's Code Club.

*Kotlin Spring Boot REST APIs JavaScript*

### Daily Tasks

<https://github.com/SaurabhTotey/Daily-Tasks>

A small Android app to keep track of my progress on activities that I should be doing daily. Stores information in JSON format on a local file. Also sends notifications periodically to remind me to do the remaining daily tasks.

*Kotlin Android*

### Discord Walker Bot

<https://github.com/SaurabhTotey/Discord-Walker-Bot>

A small JavaScript project that polled a channel on a Discord server every weekday to ask who would walking to school on that day while reporting that day's weather.

*JavaScript HTTP Requests*

# Leadership

2017 - 2019

## Fairview Code Club President

Managed club activities, meetings, and events for Fairview’s Code Club. Events included code competitions and help sessions.

2017 - 2018

## Fairview Speech and Debate Captain

Taught members debate skills for the Public Forum debate event in addition to managing meetings and organizing snacks.

2018 - 2019

## Fairview Robotics Lead Autonomous Programmer

Helped manage the programming team of the Fairview Robotics club and developed autonomous code for the team’s robot.

2017 - 2019

## Fairview Stock Market Club Technology Master

Managed the Fairview Stock Market Club website and periodically gave presentations about algorithmic trading.

# Awards

2018

Lockheed Martin Code Quest First Place Winner

2016, 2018

Speech and Debate State Qualifier

2017, 2018, 2019

Future Business Leaders of America Nationals Qualifier

2019

3rd in Math/Computer Science Category at the Corden Pharma Regional Science Fair

# Relevant Coursework

Course Number	Abbreviated Course Name	Grade
MATH 2400	Calculus III	B
MATH 2001	Introduction to Discrete Mathematics	A
MATH 2130	Linear Algebra for Non-Math Majors	A
MATH 3140	Abstract Algebra I	A
MATH 3430	Ordinary Differential Equations	A
MATH 4900	Independent Study on Coxeter Groups	A
MATH 3001	Analysis 1	WIP
CSCI 2275	Programming and Data Structures	A
CSCI 2824	Discrete Structures	A
CSCI 2400	Computer Systems	A
CSCI 3002	Human Computer Interaction	WIP
CSCI 3022	Intro to Data Science	WIP
CSCI 3308	Software Development Methods/Tools	WIP
PHYS 2170	Foundations of Modern Physics	A
PHYS 1140	Experimental Physics I	A
PHYS 2210	Mechanics and Math Methods 1	A
PHYS 2150	Experimental Physics II	A

WIP means I am taking this course over the summer and do not yet have a grade.