



PREMKUMAR GIRIDHAR

student • developer • coding mentor
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COMPUTER SCIENCE SKILLS

Highly experienced in **responsive front-end web development** with HTML, CSS, and JavaScript; and **back-end web development** with Python + Flask and Node.js + Express.js.

Highly experienced in **algorithmic, general-purpose programming** with Python

Skilled in **data analysis** with Python

Skilled in **database management** with MongoDB

Intermediate-level skills in algorithmic, general-purpose programming with Java, C++

Beginner-level skills in machine learning with Python + Scikit and TensorFlow

EDUCATION

STUDENT • FOOTHILL HIGH SCHOOL

Unweighted GPA: **3.94**

AP Computer Science grade: **A+, A+**

AP Statistics grade: **A, A+**

AP Computer Science Principles AP Score: **5**

Weighted GPA: **4.33**

AP Calculus BC grade: **A, A**

SAT II Math score: **800**

AP Computer Science AP Score: **5**

WORK EXPERIENCE

SENIOR VICE PRESIDENT OF RESEARCH AND DEVELOPMENT • NIZE SYSTEMS

FEB 2020 – PRESENT

As the manager of the Research & Development department, I research new technologies and services that could benefit our company. For example, I'm currently researching various statistical regression models to figure out which one can best map a specific type of trend that I work with.

FOUNDER, CHIEF INFORMATION OFFICER • NIZE SYSTEMS

AUG 2018 – FEB 2020

As the manager of internal technical affairs, I led the development of flagship software and managed a department of software developer employees. I worked extensively with front-end web development and a Node.js backend that interfaced with Raspberry Pi GPIO pins to scan and register RFID cards.

SOFT SKILLS

- Leadership
- Time management
- Communication
- Flexibility

OUTSIDE EXPERIENCE

DATA PROCESSING • PYTHON

As a side project, I've worked extensively on processing and analyzing data from Google and Facebook data downloads to calculate statistics such as the most spoken words, most frequent speakers, etc. My code is available here: <https://github.com/8BitRobot/Facebook-Message-Analysis>.

STATIC WEBSITE DEVELOPMENT • HTML/CSS/SCSS/JAVASCRIPT

I developed the entire website for FalconHacks, a virtual hackathon in May 2020. The site is fully mobile-responsive, using CSS and JavaScript to adapt the navigation menu and various textual elements to be viewable on mobile displays. The site is available at <https://falconhacks.org>. In addition, I have developed the website for Studio Heart Engine, a game development club at my high school. The site is available at <https://studio-heart-engine.github.io>. Finally, I designed and developed my own portfolio website at <https://8bitrobot.github.io>.

DYNAMIC WEBSITE DEVELOPMENT • HTML/CSS/JS, NODE.JS, PYTHON

I'm one of the lead developers of the Bay Area COVID-19 Tracker, a tracker that monitors the spread of the coronavirus and presents the latest news and local resources for the Bay Area. Though this project is affiliated with my company Nize Systems, it's a side project unrelated to the flagship Presence devices that we aim to sell as a business. I've developed an RSS feed scraper that fetches the latest news about the pandemic. I have also made various pages of the site responsive for mobile devices, added site cookies to present the changes in cases since the user has last visited, and used Chart.js to graph trends in the growth of the disease. You can visit our site here: <https://bact.nizesystems.com>.

VOLUNTEER EXPERIENCE

ORGANIZER • GIGAHACKS

NOV 2019 – PRESENT

I'm one of the lead organizers of GigaHacks, a series of free Bay Area hackathons with a total turnout of over 200 people. We've had two events so far: an in-person event in 2019 and a virtual event in 2020. I mentored various attendees in coming up with ideas, and I helped them with tasks ranging from developing a website to getting up and running with GitHub. I also prepared an introductory workshop teaching the basics of web development (HTML and CSS) and an AP Computer Science review workshop.

PYTHON, WEB DEVELOPMENT MENTOR • TRI-VALLEY CODER DOJO

JUN 2018 – JAN 2019

At Tri-Valley Coder Dojo, a volunteer-run organization that provides a space for kids to spend time collaborating and coding, I mentored various kids in Python and web development. At my first few sessions, I helped an ambitious kindergartener start making a game using Python and Pygame and taught him about Pygame's input handling methods. Later on, I helped another student write a program that used web-scraping libraries to crawl a library database and gather information for his own web application, teaching him about time complexities to help him optimize his code.