

Sara Abubeker

3911 Jamie Place, San Ramon, CA 94582 | 925.336.4931 | sara.abubeker@berkeley.edu

EDUCATION

University of California, Berkeley – GPA: 3.57

August 2022 - December 2024

B.S. in Biomedical Engineering in Progress

- Coursework: Biomechanics, Engineering Molecules, Engineering Devices, Biomedical Physiology, Instrumentation in Biology and Medicine
- Biomedical Engineering Society, Arab Student Union, and Muslim Student Association

Diablo Valley College – GPA: 3.82

June 2019 - May 2022

Two Year Program in Biomedical Engineering

- Awarded academic honors standing for all semesters; Member of Phi Theta Kappa Honors Society
- Coursework: General Chemistry 1-2, Organic Chemistry 1-2, Calculus 1-3, Differential Equations, Linear Algebra, Physics: Mechanics and Wave Motion, Heat and Electromagnetism, Optics and Modern Physics, Computer Programming using MATLAB and C++, Intro to Circuits and Devices, Cellular and Molecular Biology

WORK EXPERIENCE

Math and Science Center Tutor, Diablo Valley College | San Ramon, CA

January 2020 - May 2022

- Taught subjects up to Multivariable Calculus and Organic Chemistry 2, along with Linear Algebra and Physics.
- Assisted any DVC student experiencing difficulty in their course, adapting to their unique learning style.

COVID-19 Testing Site Worker, KindlyTest | Pleasanton, CA

December 2021 - April 2022

- Managed the testing site, overlooking all operations. Provided patients self-test kits, while instructing and monitoring the self-tests. Interacted with and assisted hundreds of patients per day, further developing professional interpersonal and situational skills.

President, Muslim Student Union, Diablo Valley College | San Ramon, CA

January 2021 - December 2021

- Directed and organized bi-weekly meetings. Coordinated events beneficial to the campus environment, spreading awareness of current issues, such as the Uyghur Muslim Concentration Camps in China; created a safe space for students by organizing discussions surrounding mental health. Hosted scholars, activists, and mental health professionals as guest speakers.
- Managed and overlooked club's social platforms; marketed and advertised MSU events to all DVC students.

Biotechnology Science Academy Teacher Assistant, Bay Area LEEDS | San Ramon, CA

July 2021

- Facilitated a summer biotechnology program consisting of forty high school students, hosted by Bay Area Leeds in collaboration with Diablo Valley College.
- Engaged in developing students' communication, problem-solving, and presentation skills, while promoting and encouraging a collaborative environment through teamwork, overall motivating their continuation into college.
- Overlooked and aided students through labs (in which equipment skills such as micropipetting were learned), projects, and presentations. Topics ranged from CRISPR gene editing to disease detection and control, to stem cell research.

Physics and MakerSpace Instructor, College For Kids, DVC | San Ramon, CA

June 2019 - July 2019

- Led two classes of 15-25 kids, ranging in age from 10-15 years. Instructed introductory physics and "makerspace," a hands-on, collaborative crafts/constructive workspace that allows for problem-solving through expressive creativity and innovation.

PROJECTS

Heat Stroke Detection Device | Engineering Devices

Fall 2022

Designed a circuit consisting of a strain gauge, thermistor, ADC converter, active low pass filters, and a bluetooth transmitter. Sensors measure blood pressure, heart rate, and external skin temperature, and output signals are then amplified, filtered, and processed. Device notifies user of risk of heat stroke when shifts in signals are symptomatic of transition from heat exhaustion to heat stroke.

Valvular Heart Disease Literature Review | Biomechanics

Fall 2022

Wrote a literature review about the mechanisms of valve dysfunction in valvular heart disease, as well as plenty of existing biomechanical approaches to treating the illness. Delved into areas of complication regarding the illness where no efficient approaches of treatment have been found.

SKILLS & LANGUAGES

Skills: MATLAB, SolidWorks, LTSpice, C++, Autodesk EAGLE, Autodesk Tinkercad, Microsoft Office Suite, Google Workspace, Teamwork, Communication, Organization, Coordination, Event Planning, Leadership

Languages: English, Spanish (conversational), Arabic (limited working proficiency)