

# Saad Abdul Quddus

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## EDUCATION

### University of California, Davis

Davis, CA

*Undergraduate - Bachelor's of Science in Computer Science*

*Graduation Date: June 2022*

- Cumulative GPA: 3.8 | Davis Computer Science Club Member
- UC Davis Dean's Honors recipient 5 quarters in a row (*Fall 2019 - Winter 2020*)
- Fluent in: English, Urdu, Hindi, Arabic, French (Seal of Biliteracy)
- Relevant Coursework: Discrete Math, Introduction to Programming in Python, Programming & Problem Solving in C, Software Development & Object-Oriented Programming in C++, Data Structures, Algorithms, & Programming in C++, Algorithm Analysis and Design, Computer Organization & Machine-Dependent Programming in x86 Assembly in C, Linear Algebra, Calculus Series

## WORK EXPERIENCE

### Code Camp Instructor

Folsom, CA

*Programming Instructor for the Muslim Community of Folsom's Code Camp 2019*

*May 2017 - September*

- Encouraged students aged 10-15 to express their creativity through problem solving on Python.
- Designed and established an upgraded system for running classrooms which encouraged higher test scores. After incorporating the system, **45% of students** received higher grades by a factor of **10-20%**.

### Private Calculus Tutor

Folsom, CA

*Customer Service Representative 2019*

*June 2018 - December*

- Tutored students aged 16-18 in Calculus 1, 2 & 3 for 8-14 hours a week.
- Taught multiple different levels of Calculus to students.
- **75% of students** increased the number of weekly tutoring sessions.

## LEADERSHIP EXPERIENCE & PROJECTS

### UC Davis Farm Improvement Project

Davis, CA

*Arduino framework using C*

*November 2020 - December 2020*

- Managed a team of 4 students to model an automated lighting system, using arduino framework, for the UC Davis farm which had no available light during the night.
- Devised solutions during times of dissension and discord. Team was able to harmoniously strategize and achieve excellent results.
- Developed a C file which programmed an automated lighting system, involving light-sensors, motion sensors, LEDs, through arduino. Program involved mostly while loops calling on boolean functions.
- 3D-Printed a model of the lighting system. Project was presented to a panel of engineering judges at the UC Davis STEM expo.
- Achieved a **95%** approval rate for our design.

### Project Library Database

Davis, CA

*Linux environment in C++ language*

*November 2020*

- Incorporated an object-oriented program with Binary Heap Algorithm in C++ working with a JSON Library database
- Implemented quicksort, mergesort, binary search, and linear search. Performed CPU speed tests for each algorithm.
- Program was **over 4x faster** than its first prototype.
- Program was used by many students in UC Davis classes to organize their projects, homeworks and other deadlines.

### SMUD Solar Boat Interscholastic Competition

Sacramento, CA

*Manufacturing & Hardware*

*October 2017 - May 2018*

- Worked within a team of 8 to design and build a solar powered boat for the 2018 SMUD Solar Boat regatta.
- Managed conflicts between team members and promoted team building.
- Achieved **1st place** in the maneuverability test and displayed impressive results in the competition and performed an excellent presentation to a panel of engineers, describing the design process and problem solving strategies involved.

## TECHNICAL SKILLS

**Languages & Technical Skills:** C++ Python Unix Linux Bash-Scripting x86 Assembly C Matlab C# SSH