SAUMITRA TIWARI
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Education

California Polytechnic State University(Cal Poly) — **San Luis Obispo, CA**
Bachelor of Science: Computer Engineering — ***Expected Graduation: june 2024***

- Overall GPA: 3.8, Major GPA: 4.0
- Relevant Coursework
  - Computer Science: Data structure and Algorithm design, OOP with C++ & java, Discrete Math, Digital design.
  - Math: Differential Equations, Linear algebra, Multi Variable calculus.
  - Electrical Eng(EE/CPE): Electric and electronic circuit 1, Electric and Electronic circuit 2.

Folsom Lake college — **Folsom, CA**
Associate Degree: Math, Physics — ***Graduated: May 2022***

- Overall GPA: 3.8, Major GPA: 4.0(President highest Honor, Fall 2021)

Skills

- Languages: English, Hindi(Native fluency)
- Programming Languages: C/C++, Java, HTML5, CSS, JavaScript, React.js, Node.js.
- Softwares: Proficient in Photoshop, Lightroom, Premier pro, Xilinx Vivado.
- Lab Instruments: Oscilloscope, Agilent 34401A, FLUKE 8840.

Projects

Simple Frequency-shift key IR communication system — **San Luis Obispo, CA**
October, 2022

- Built an LED transmitter using a 555 IC timer that oscillates and transmits various frequencies.
- Developed the IR signal-accepting photo amplifier circuit.
- Designed an analog tachometer that decodes the received signal's value.

Vending machine on FPGA(BASYS3) board — **San Luis Obispo, CA**
November, 2022

- Wrote a VHDL source code that drove multi-bits input and displayed the output on a 4 digit seven-segment display.
- Created a clock signal that refreshed the display at a frequency of 250 Hz.
- Designed, program the different states of the vending machine to perform the given task successfully.

Personal Portfolio Website — **San Luis Obispo, CA**
September, 2022

- Used html5, CSS and javascript to create a responsive Website.
- Followed the CSS Grid system to divide the webpage into different sections and used that to edit the contents.
- Used the media queries to make certain elements of the webpage responsive.
- Developed the particles effect using javascript and used a circle collision algorithm to detect if two particles are colliding.

Genetic Algorithm Robots — **Folsom, CA**
Folsom Lake College(FLC) — ***September, 2020***

- Created an AI using C++ language that maneuvers around in a grid looking for energy.
- Used depth first search algorithm to efficiently find the location of the energy that will keep the bot alive.
- Used the data from the older generation of bots and applied it to the newer ones to help them last longer.
- Collected the data from the last generation of bot that provides the shortest path to all energy sources in the least amount of time.

On-Campus Involvement

Boys team Charity(btc), Happy Valley chapter — **Happy Valley, Oregon**
Media Supporter — ***Apr, 2021- Sep, 2021***

- Designed and helped maintain their website.
- Worked with six board members to create, record and edit the official Kickoff video of charity, spring 2021.
- Worked with 20 different high school students to advertise the charity mission in the community.

FLC++ - FLC — **Folsom, CA**
Active Member — **Jan, 2020- July, 2022**

- Posted and solved more than 100 algorithm questions with 20 other members of the club.
- Actively participated in interview challenges and questionnaires.
- Tutored 12 High School students on AP Computer science courses.

Work Experience

Starbucks — **Orangevale,CA**
Barista — ***June, 2021-August, 2022***

- Built effective connections with more than 100 customers.
- Helped in processing credit card, debit card and other important store transactions.