## **SUBHANGA GHIMIRE**

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# Bachelor of Science in Computer Engineering, Valparaiso University

December 2022

GPA: 3.45/4.00 College of Engineering Dean's List

## Work Experience

## Engineering Intern, Atlas Copco, Michigan City IN

June-August 2022

- Remodeled a standalone program to automate pass-fail criteria for Vacuum Pump
- 80 different vacuum selection options solving mathematical equations using data from past data
- Reduced manual efforts from 1 hour 30 minutes to 35 minutes projected \$5200 weekly saving for the company.

#### IT Intern, Atlas Copco, Michigan City IN

June-August 2022

- Investigated functionality of 12 departments tested different EPRs to optimize efficiency in the office
- Projected increase in work efficiency among employees and high security of data with a cloud-based approach

## Student Technician, Information Technology, Valparaiso University

April 2021-present

- Diagnose and repair all technology facilities through campus.
- Manage tickets queue using Jira and reimage workstation using FOG station.
- Coach newly hired student technicians on advanced technical problem

## Teaching Assistant/Tutor, College of Engineering, Valparaiso University

January 2021- present

- Supported group and one-on-one tutoring, helping across ECE, Math, physics program
- Providing specialized academic coaching for students in the academic recovery program
- Communicate concepts and faculty expectations, supporting students at varying levels
- Promote a learning environment and support students with all resources

## **Projects**

## Biaxial Tensile Tester, Senior Design Project

- Lead Programmer at a multi-discipline engineering team of mechanical and computer engineers.
- Live data plotting of force and displacement (X and Y axis) of the pigment inserted using matplotlib in python and multi-way communication with Arduino for user input.
- Application of motor driver to contract and retract linear actuator, Loadcell to measure the force.
- Data storage of live data into an SD card for future analysis

#### Paint Replica, JavaFX

- Built the app on weekly sprints to work on client's needs in an Agile environment
- Event and Action handlers in GUI servers applying UML
- Class Hierarchy design for modeling and Unit Test Cases.

## Smart Garage, MSP 430, Code Composer

- Designed, developed, and implemented software replicating an automated garage system on a microcontroller based on the ARM platform, embedded C
- Supported a safer operation of Garage system by applying servo motor, motion sensors, and timer peripherals.

## **Civic & Community Involvement**

## At-Large Senator, College of Engineering Valparaiso University

February - May 2022

- Facilitate the correspondence and communication between admiration and students.
- Served in the Screening committees overseeing the recruiting of the new senator
- Advocated for students and wrote legislation to help the student body on campus

## Event Chair, Valparaiso International Student Association

August 2019-May 2020

- As event chair, a significant increase in number of students in an event
- Recognition: Best organization on campus 2019-2020, presented by Valparaiso University, first out of 60

## Get Inspired Sessions, United States Education Foundation, Nepal

May 2019

- Inspired and informed 70-80 prospective students about studying abroad
- Student career counseling and SAT, IELTS advising

## Student Ambassador/Orientation Assistant (OIP), Valparaiso University

August 2019-present

- Represented, personified, and advocated for Valparaiso university's values, and school spirit to student
- Planned and implemented a week-long summer session for 500 participants.
- Assist students from 25 different countries with questions arising from culture, helping them join a larger community

# **Technical & Other Skills**

- Programming: Java, C++ (& Arduino tools), Python (NumPy,Pandas), Assembly (x86, MASM),
- Microcontroller/Circuit Design: VHDL, CircuitLab, KiCad PSpice, Altera FPGA Suite, TI MSP432
- *Tools/Environments*: Microsoft Windows, R Studio (Statistical/Numerical Suite), Maple, Android Studio, WireShark
- Languages: English, Nepali, Hindi