LEMUEL MATTHEW PRANOTO

1618 Quebec Street, Vancouver, BC, V6A 0C5
E-mail: lemuelmpranoto@gmail.com | Phone: +1 604-780-0672
GitHub username: lemuelmpranoto

COMPUTER SKILLS

Programming Java, C, C++, Verilog, System Verilog, Assembly (Y86 and ARM), Python, R, JavaScript, HTML, CSS

Software IntelliJ, Visual Studios Code, Eclipse, Git, ModelSim, Quartus, AutoCAD, Windows OS, Microsoft Office, RStudio, Raspberry Pi 3

EDUCATION

University of British Columbia *Expected Graduation: May, 2022*

Bachelor of Applied Science, Computer Engineering

Co-op: Completed 0/5 work terms; Available 4 or 8 months beginning May 2020

TECHNICAL PROJECTS

Document Text Sentiment Analysis *September, 2018*

- Implemented a program algorithm with the ability to read a text and return its sentiment analysis score (how happy or sad the text is), and also compare document similarity between two documents.
- Worked using Microsoft Azure for calculating a document's sentiment score.

Graph Interface Implementation *October, 2018*

- Created a program algorithm that implements a graph interface and has the ability to calculate the shortest distance between two nodes, the graphs diameter, and its center.

Simple RISC Machine *November, 2018*

- Built a simple RISC machine using Verilog (HDL) with the ability to do simple calculations and load and store memory from within using a data path system.
- Used the DE1-SOC board as the FPGA to implement the RISC machine.

Real life Server-Based Home Security System (Team work) *March, 2019*

- Built a real life "dummy" home security system.
- Used Raspbian on Raspberry Pi 3 and implemented analog input sensors such as camera to detect facial recognition, keypad to input password in order to unlock the "house", buzzer that rings when the motion detector detects an intruder, LCD to give the user the ability to read text, and an auto lock and unlock gate system.
- Developed the front and back end of a website. The website gives the user ability to change password, view the camera as a CCTV, etc. The website mainly acts like an application on mobile phones for the home security system.
- Added a server for the website to provide real-time updates and data.

Line Follower Robot and Twitter API (Team work) *February, 2019*

- Built a robot with the ability to follow black tape on the ground, the ability to be controlled by a remote-control, and autonomous driving but can stop when there is a wall in front.
- Using Twitter API to auto tweet whenever a desired event is triggered by the sensors.
- Developed the algorithm for the robot to follow the black tape using sensors.

System with an Embedded Softcore CPU *June, 2019*

- Built an entire system with an embedded softcore CPU using Verilog and C code that interacts the hardware modules.
- Built a Nios II – based SoC system and the components for the Avalon on-chip interconnect that helps connect hardware and software of the SoC system.
- Mapping pixels on specific coordinates to the VGA core and displaying it in an LCD screen.

ACHIEVEMENTS AND AWARDS

- Two-time scholarship recipient for outstanding student at Columbia College.
  - February 2017 and February 2018
- Four-time honorable mention awards for students with term G.P.A higher than 3.7 at Columbia College.
- Second place finish at a basketball school district competition for my high school.
  - Part of the varsity team starting line-up (position: point guard).
  - March 2016
- Varsity soccer team captain for two years at my high school.
- SFU Indonesian Association futsal competition champion.

VOLUNTEER EXPERIENCE

- Columbia College

INTERESTS & ACTIVITIES

- Photography, Music, Movies, Videographer
- Snowboarding, Soccer, Basketball, Badminton, Frisbee