Natkamol Limapichat

Electrical Engineering

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TECHNICAL SKILLS

Electrical	FPGA Board (DE1-SOC) • Various Microcontrollers • Oscilloscope • Motors • 3D Printing
Programming	C • Python • SystemVerilog • Assembly(x86 / ARM) • MATLAB • HTML / CSS • PHP/SQL
Software	CircuitMaker • Quartus / ModelSim • MATLAB / Simulink • Visual Studio • AutoCAD • Inventor / SolidWorks

ACADEMIC

University Of British Columbia

- Bachelor of Applied Science in Electrical Engineering; 6 of 8 academic terms completed
- Anticipated date of Graduation: May, 2020

WORK EXPERIENCE

WOOD, Vancouver, BC — September 2018 – Present

Electrical Engineering Co-op

- Assisted other engineers with documents and drawings verification
- Compiled and generated reports for BC Hydro's Circuit Breaker Replacement Program, and other power projects
- Worked with designers on streetlighting projects for Florida Power & Light

TECHNICAL PROJECTS

Motor Design and Development — January 2018 – May 2018

SolidWorks / Mechanical Prototyping

- Designed and developed brushed permanent magnet DC motors for a two-axis laser control system that drew images and objects
- Researched and developed prototype of various motor parts using 3D printing along with machining and implementing the completed designs
- Led the mechanical team and collaborated with the controls team to implement the system

SLS 3D Printer Control System modeling — November 2017 – December 2017

MATLAB / Simulink

- Developed models to compute the direct and inverse kinematics of the simulated physical system
- Modeled the electrical and mechanical dynamic of the motor system along with electronic component and physical structures
- Designed and optimized a PID controller to maximize the speed of the system while minimizing position errors

Magnetic Field Track Controlled Robot — April 2017 – May 2017

C8051F38x Microcontroller / STM32F051 Microcontroller / C / ARM

- Designed and constructed an autonomous robot capable of detecting a magnetic field generated by a guide wire
- Developed basic firmware and instruction set used by the robot to self-adjust and carry out movement instructions
- Implemented a communication protocol between the robot and the controller system using real-time inputs
- Collaborated and led a team of six and received an overall grade of 95% in the design studio course

Reduced Instruction Set Computer (RISC) — October 2016 – November 2016

FPGA Board / Verilog / ARM

- Developed a RISC machine to perform CPU computation tasks and memory allocation
- Designed a state machine along with pipeline register and instruction decoder to handle requests and instructions
- Debugged designs error in a team of two effectively

OTHER WORK EXPERIENCE

White Spot Triple Os, Vancouver, BC **July 2017 – August 2017**
Grill Cook

- Cooperated with other staff in a confine working space and provided support when needed
- Worked effectively in a fast-paced environment to prepare meals in a timely manner, while ensuring the quality of food
- Maintained cleanliness in the workplace, ensuring the equipment, utensils, and environment are up to Food Safe standard

SerVantage Health Service (SHHCC), Vancouver, BC **January 2014 – May 2016**
Food Services

- Screened patient's meal in detail in regards to allergen, texture, portion size to ensure that the patient receives proper food suitable for their health condition
- Worked effectively in an independent environment through set procedure, managed the kitchen unaccompanied, and carried out tasks unaided
- Maintained security in the workplace as a key holder and prevented any individual without proper authorization from entering sensitive area

PROFESSIONAL AFFILIATIONS

Engineers and Geoscientists BC (EGBC)
Student Member