

HAKEEM SADIQ

Computer Engineer

📞 519-981-0851

✉️ Hakeem.o.sadiq@gmail.com

🌐 hakeemsadiq.com

📍 London, Ontario

SUMMARY

I'm an FPGA Computer Engineer with experience in both hardware and software projects.

PROJECTS

Development of the Double Frequency (19F/1H) Coil for a Clinical PET/MRI Scanner

📍 Lawson Health Research Institute

- Designed and constructed High-pass Birdcage Radio-frequency (RF) coil to function at 19F frequency (115Mhz)
- Designed an RF shield to change the resonance frequency of the coil to 122MHz

Basic Processor

- 16 instruction processor implemented on Basys3 FPGA (VHDL)
- Arithmetic, logic, and register control operations
- Components Include: Registers, Control Unit, ALU, Multiplexer, Decoder

Binary to BCD Converter

- 8 bit binary input converted to BCD (Verilog, VHDL)
- BCD code displayed on Basys3's seven segment display
- Modules include: Multiplexer, Decoder, Clock, Counter, Converter

Fan Controller

- Arduino controller (C++)
- Receives input speed, 0-5 from keyboard, adjust fan based on input, and outputs fan speed setting (LOW, MEDIUM, or HIGH) to an LCD

Brain-Computer Interface Experiment

- Worked with a team of 2 Engineering Students
- Created Shepard-Metzler mental rotation task simulation (Java)
- Captured brain signals using 64 Channel EEG (Biosemi systems)
- Processed and analyzed signals (MATLAB)

EXTRACURRICULARS

Head Coach

WesternU Women's Football Team

📅 08/2019 - 06/2022

- Plan, schedule, and run all practices, meetings, and team events
- Coached team to an 18-0 record in the OWIFA league, winning all 3 tournaments participated in as a first year head coach
- 16-1 record winning 4 out of 5 tournaments including 2 provincial championships and placing top 5 in the nation in 2022

EDUCATION

B.E.Sc. Computer Engineering

University of Western Ontario

📅 09/2016 - 05/2020

B.Sc. Medical Physics

University of Western Ontario

📅 09/2020 - 2023

SKILLS

Programming Languages and Technologies

VHDL	Verilog	C++	C	C#
microC	Python	MATLAB	Java	
JavaScript	Assembly/Machine			
nodeJS	SQL	Android Studio		
Flutter	HTML5	Firebase		

CAD/Design Tools

Xilinx	Quartus	Cadence
Eagle	MicroCap	

Technical Skills

Computer Architecture	FPGA Design
FPGA Simulation	FPGA Verification
Digital System Design	
Embedded systems	
Socket programming	