

## CONTACT

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# Daksh Patel

## EDUCATION

**Bachelor of Applied Science Honours Electrical Engineering** Sept 2013 to Aug 2018  
**University of Windsor** Windsor, ON  
Immediate Engineering knowledge includes AC and DC circuit analysis, object-oriented programming, embedded systems design and applications of quality control using statistics

## PROFESSIONAL EXPERIENCE

**Technical Consultant** May 2015 to Aug 2015  
**Sutherland Global Services** Windsor, Ontario

### Roles:

- Provide customer with product and service information using excellent interpersonal skill
- Identify, research and resolve technical customer issues as trained
- Diagnose, troubleshoot and resolve basic to advanced technical concerns
- Document customer notes, reports and logs in real time communication with customer
- Met client contractual goals and metrics with regards to providing excellent service

## PROJECTS COMPLETED

**Hack The 6ix Hackathon** Aug 2018 – Aug 2018

### Devpost Project Title: SurroundSound

- Automatic playlist creator based on the specified location and the people inside of it
- Developed using JavaScript, React-Native, MongoDB, Express JS, Passport JS, Node JS
- GPS location scanning, Spotify Authentication, Playlist management were worked on

**Autonomous Multi-Sensor Information Fusion**

Nov 2017 – Aug 2018

### Sounding Rocket Payload Capstone

#### Roles: Electrical Lead

- Developed a payload to be a datalogger for the flight of a sounding rocket to reach 10,000ft
- Analyze and display the collected information in a meaningful way
  - Large datasets, SQL database, NodeJS, PHP, Django, Web Frameworks, ChartJS, JSON
- Work consisted of designing and implementing the payload
  - Programming in C++ and Python for the Arduino and Raspberry Pi boards, respectively
- Custom designed PCBs to fit size requirements
- Installed battery management system to allow all the systems to perform for +7hrs in desert heat
- Organized the team, scheduled tasks and overlooked all aspects from beginning to end

**FPGA Communications**

Jan 2018 – Mar 2018

### Embedded Systems Design

- Implement a differential function at the gate level in VHDL with attempt in Verilog
- Implemented communication from FPGA to Arduino for mathematical function in VHDL

**Go-Back-N Protocol Python**

Feb 2018 – Mar 2018

### Computer Communications

- Implement the Go-Back-N Protocol in Python using Client and Server in Socket

**CPU Cache Simulator**

Feb 2018 – Mar 2018

### Digital Computer Architecture

- Designed a level one cache simulator using Python for large data sets
- Implementing least recently used and write back methods

**MIPS CPU Verilog**

Jan 2018 – Feb 2018

### Digital Computer Architecture

- Implement MIPS CPU design in Verilog using Quartus Prime
- Implement 5 Stage Pipelining CPU of MIPS architecture

**Hack Western 4 Hackathon**

Nov 2017– Nov 2017

### Devpost Project Title: Phishr

- Utilizing Electron Framework create an app to teach avoidance of Phishing Emails

**ALU**

Sept 2016 – Dec 2016

### Digital Logic Design II

- Developed an Arithmetic Logical Unit to perform 25 arithmetic functions
- Utilized Quartus Prime and ModelSim for programming in VHDL

**4bit and 6bit RISC CPU**

May 2016 – Aug 2016

### Microprocessors

- Designed and simulated a 6bit CPU using RISC architecture inside of Logism
- Implemented an ALU with 15 operations using hexadecimal operation codes

References Available Upon Request

## SOFTWARE SKILLS

- Matlab/Simulink
- Altera Quartus/Modelsim
- EMPro, OrCad, PSpice, TINA
- Verilog, VHDL, Assembly
- C++, C#, JavaScript, Python, Django, PHP, NodeJS, Web Dev
- FPGA, Raspberry Pi, Arduino, Android, Linux
- Embedded Systems
- DaVinci Resolve, Premiere Pro, Lightroom
- Unity, Godot, Unreal
- Microsoft Office

## GENERAL SKILLS

- Interpretation of blueprints/diagrams
- Microcontroller design
- Oscilloscopes, Waveform Generators
- Designing, prototyping, and assembling electronics
- Grounded in instrumentation and/or electronics

## HIGHLIGHTS

- Effective organizational and team working skills
- Strong analytic, interpretive and, presentation abilities
- Ability to work with no supervision and under pressure.
- Strong interpersonal, verbal and written communication skills.
- Outstanding multi-tasker
- Highly organized and calm under pressure
- Project management

## HOBBIES

- Photography
- Videography
- Tennis, Badminton
- Kayaking
- Home Server