

## CONTACT

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EIT #:

# Daksh Patel

## EDUCATION

**Bachelor of Applied Science Honours Electrical Engineering** **Sept 2013 to Aug 2018**  
**University of Windsor** **Windsor, ON**  
Engineering knowledge includes AC and DC circuit analysis, control systems, 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
- Communicated with the team, scheduled tasks and overlooked all aspects of the projects
- Writing professional reports and using spreadsheets for calculating and organizing finances
- Worked in a team environment, developed a sense for leadership and motivation
- Solved real problems as they came hurdling in

**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

**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**

More Projects Listed on GitHub

## SOFTWARE SKILLS

- Matlab/Simulink
- Altera Quartus/Modelsim
- EMPro, OrCad, LTSpice, PSpice, TINA
- Verilog, VHDL, Assembly
- C++, C#, JavaScript, Python, Django, NodeJS, MEAN, LAMP, Web Dev
- FPGA, Raspberry Pi, Arduino
- LINUX, Windows, Android
- Embedded Systems (68HC11)
- DaVinci Resolve, Premiere Pro, Lightroom
- Unity, Godot, Unreal
- Microsoft Office: Word Processing, Spreadsheets

## 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
- Self-motivated team player