

# DANYAL SIRAJ

www.danyal.info

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## ABOUT

Electrical Engineer with a strong interest in hardware design and programming. Always working on new projects with passion to explore hardware technologies. My skills include, but are not limited to circuit design and simulation, strong grip in MATLAB and C/C++, problem solving, and quality assurance.

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## EDUCATION

### BASc in Electrical Engineering with Engineering Management

University of ottawa

*September 2012-December 2016*

- Received Admission Scholarship
  - Specialized in Systems Engineering
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## AREAS OF EXPERTIES

### Circuits

- Superior knowledge of Basic circuit elements (resistors, capacitors, inductors).
- Experience in using oscilloscope, spectrum analyzer, current/voltage sources, multimeter, and signal generator.
- Expert in using computer-aided circuit simulation software such as PSpice, NI Multisim, and Quartus.
- Able to design, implement, and simulate circuits on the software.
- Able to design, implement, and debug circuits on computer and on breadboard with efficiency.
- Knowledge of PCBs and how to repair them.
- Soldering and desoldering.

### Programming Languages

- Basic knowledge of HTML, CSS, and JS. Built the online resume.
  - Knowledge of C++ and OpenCV. Developed face/eye tracking application in C++ and OpenCV.
  - Advanced skills in MATLAB and Simulink.
  - Java/C: Intermediate knowledge of algorithm design, array, strings, and matrices.
  - Arduino programming and VHDL (FPGA programming).
  - Experience in software application testing and web testing.
  - Version control using git.
  - IDE: Eclipse, Visual Studio, MATLAB, Sublime.
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## PROFESSIONAL EXPERIENCE

### Screener

SBE Canada Ltd

*May 2017-Present*

- Test the cell phones and tablets for functional and cosmetic faults.
- Perform function tests by using auto test codes or manually.
- Troubleshoot to resolve software issues(i.e. Hard reset).
- Assign grades to all the devices based on the cosmetic condition.
- Scan all the devices in computer and update the device information.

## **C++/OpenCV Developer**

*Jan 2016-Dec 2016*

### Capstone Project

- Maia - Design and Develop Cursor Control via Eye Tracking.
- Developed MATLAB simulation to validate the concept.
- Used C++ and Open CV to develop the tracking software.
- Created executable file to allow portability for windows platform.

## **Consultant**

*Jan 2016-Apr 2016*

### University Of Ottawa

- Helped Mechanical Engineering students design a controller for different systems.
- Designing and building schematics for an automatic pill dispenser.
- Using Arduino a controller.

## **Junior Quality Assurance Analyst**

*Sep 2015-Dec 2015*

### Innovation Science and Economic Development Canada

- Testing such as: Functional, Integration, System, Regression, and User Acceptance.
- Creating/executing test plans and test cases from use cases and/or requirements documents.
- Deploying builds in a dedicated testing environment.
- Logging/analyzing issues using a bug tracking software (JIRA).

## **Junior IM/IT Architecture Analyst**

*Jan 2015-Apr 2015*

### Transport Canada

- Assist with identifying appropriate IM/IT solutions to meet the requirements of the business lines.
- Researching and testing commercially available products to determine their functionality and ease of use.
- Consult with IM/IT Architecture team to determine the viability of options and recommendations.
- Testing and evaluating software and hardware to assess its suitability for use within Transport Canada.
- Assist with troubleshooting and resolving problems related to IM/IT architecture.

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## **CONCEPTS**

### **Electronics**

- Knowledge of Physics of semiconductors. Diodes: operation, models, and application circuits.
- Bipolar Junction Transistor's operation and characteristics; DC and AC circuit models.
- Knowledge of CMOS and NMOS.
- Efficiently able to design logic gates by using CMOS.

### **Signal Processing**

- Knowledge of Continuous-time and Discrete-time signals.
- Zero-input/Zero-state response, impulse response.
- Fourier/Laplace transforms and filters.
- Used MATLAB to eliminate noise from audio file and simulate the response of Kalman Filter.

### **Computer Drafting/CAD**

- Good understanding of AutoCad.
- Designed 2D and 3D scaled model of houses and buildings on AutoCad

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## **PROJECTS**

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