

# DEVANSH VAID

2B MECHATRONICS ENGINEERING – CAPTIVATED LEARNER – ASPIRING ENTREPRENEUR

## LANGUAGES

C++	AutoCAD
C	SolidWorks
JavaScript	Git
HTML	Xcode
CSS	Soldering
Arduino (C)	BootStrap
Bash	GitHub
MATLAB (course)	Terminal
Python (learning)	Google Analytics

## ONGOING VENTURES



### RASPBERRY PI - LINUX

Familiar with overall use and tinkering.  
Interested in IOT and creating connected solutions.

### ARDUINO

Constructed several circuits and sub-projects with various components.  
Experienced with soldering.  
Familiar with Arduino language and hardware (shields, actuators).

## COURSE EXPERIENCE



- Object Oriented Programming
- Oscilloscope + Multimeters
- PLC + VHDL + FPGA
- Assembly Language (8085)
- Data Structures
- Real-time Operating Systems

## EDUCATION



### UNIVERSITY OF WATERLOO

Honours Mechatronics Engineering

### GLENFOREST SECONDARY

International Baccalaureate  
96% average  
Higher Level Math and Economics



## EXPERIENCE



### OPTIMIZATION DEVELOPMENT - RAKUTEN KOBO (JAN - APRIL 2016)

- Constructed complex A/B tests using the **Optimizely** platform with **JavaScript** and **CSS** to drive measurable increases in Kobo's conversions
- Created **RSpec/WATIR** UI tests to ensure proper function of experiments
- Performed **analysis** on feature initiatives using tools like **Google Analytics** and presented performance results to stakeholders at bi-weekly meetings
- Increased team workflow by releasing at least 1-2 features/experiments weekly, generating thousands of user interactions every day



### WEB DEVELOPMENT INTERN - TURNKII (JUNE - AUGUST 2015)

- Front-End web development with **HTML**, **CSS** and **JavaScript** + **jQuery** alongside a **Ruby On Rails** platform
- Developed several responsive interfaces and webpages for TurnKii's services
  - Issue reporting, work order requests, user onboarding tour
- Investigated **SEO** techniques such as landing pages and keyword optimization



### iOS SOFTWARE TESTER - THINKDIRTY® (MAY - JUNE 2015)

- Implemented fixes for bugs and UI-UX optimizations using **Objective-C**
- Programmed an Image to Text app using the **Tesseract OCR** framework
- Regularly used **Git** to initiate commits and pull-requests



## PROJECTS



### HEXACOPTER (DRONE) - (2016)

- Built a custom hexacopter using a STM32 based controller, open source flight software and various components. The project required significant amounts of **problem solving** and **design evaluations** to optimize costs and flight duration
- Next steps: Learning flight firmware and programming the drone



### MEDICATION DOSAGE ESTIMATOR - (HACKATHON) JAVASCRIPT (2015)

- Implemented a simple Javascript tool that parsed through DNA sequences and searched for mutations that impact an individual's ideal dosage range
- Worked with medical students to determine the thresholds for calculations



### AUTONOMOUS GRAB AND RETRIEVE ROBOT - C (NOVEMBER 2014)

- Designed and programmed an autonomous **C++** Lego Mindstorms robot with various sensors and **3D printed** components
- Hypothesized and evaluated various mechanical designs to optimize function



### LINE FOLLOWING ROBOT - C (NOVEMBER 2014)

- Programmed and debugged a robot, powered with a hydrogen (PEM) fuel cell, using **C++** while ensuring efficient power consumption
- Hardware: **MSP430** microcontroller and motor controller