

DEVANSH VAID

3A MECHATRONICS ENGINEERING – CAPTIVATED LEARNER – ASPIRING ENTREPRENEUR

LANGUAGES

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

ONGOING VENTURES



RASPBERRY PI

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

SOFTWARE DEVELOPER (*Data Architecture*) - RUBIKLOUD

- Generated automated **data integrity** reports against raw and transformed client data using **Python**, **SQL** and **Luigi Module**
- Developed and packaged scripts to **deduplicate** and **merge** incremental client data into Rubikloud's database with **SQL**, **Bash** and **AWS CLI**
- Implemented directory monitoring scripts using **systemd** on **Linux** to automatically transfer files to Amazon S3 server on availability
- Worked with **Talend Open Studio** to create **data mapping** and **ETL pipelines**

OPTIMIZATION DEVELOPMENT COOP - RAKUTEN KOBO

- 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 web elements
- Performed analysis on A/B tests using **Google Analytics** and presented performance results to stakeholders at bi-weekly meetings

WEB DEVELOPMENT INTERN - TURNKII

- Front-End web development with **HTML**, **CSS** and **JavaScript** + **jQuery** alongside a **Ruby On Rails** platform
- Developed several responsive interfaces and web pages for TurnKii's services (such as issue reporting, work order requests, user onboarding tour)



PROJECTS

IOT GARAGE DOOR OPENER - ARDUINO (2016)

- Integrated an **ESP8266** Wifi Module to programmatically activate a garage remote through a web page, using the **Firestore** Database for communication

DYNAMIC MEMORY ALLOCATION ALGORITHM - C (2016)

- Implemented a **half-fit memory management** scheme (using arrays, linked list data structures and bitwise operations) that tracks memory allocation and deallocation for a **real-time operating system**

HEXACOPTER (DRONE) - (2015)

- Built a custom hexacopter using an **STM32** based controller and open-source flight software. The project involved **problem solving** and **design evaluations** to optimize costs and flight duration

AUTONOMOUS GRAB AND RETRIEVE ROBOT - C (2014)

- Designed and programmed an autonomous **C++** Lego Mindstorms robot with various sensors and **3D printed** components

LINE FOLLOWING ROBOT - C (2014)

- Programmed and debugged a **MSP430 microcontroller** based line following robot (powered by a hydrogen fuel cell) using **C++**