

# Deepkanwal Dhillon

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## LINKS

Github:// [dhillondeep](#)  
LinkedIn:// [dhillondeep](#)

## COURSEWORK

### UNDERGRADUATE

Functional Programming  
Object-Oriented Programming  
Logic and Computation

## SKILLS

### LANGUAGES

C/C++	Java
Python	Go
JavaScript	Shell
Kotlin	Scheme
HTML	CSS

### FRAMEWORKS

JavaEE	JBoss
NodeJS	Swing
Qt/QML	Boost
Android	Numpy
Tkinter	Matplotlib

### TOOLS

Maven	Gradle
CMake	Make
CLion	IntelliJ
SVN	Git
Pip	Bash

## AWARDS

**PRESIDENT'S SCHOLARSHIP  
OF DISTINCTION**  
2016 | University of Waterloo

## EDUCATION

**UNIVERSITY OF WATERLOO**  
**HONOURS BACHELOR OF  
MATHEMATICS (BMATH)**  
Expected August 2021

## INTERESTS

Big Data  
Embedded Systems  
Back-end Systems  
Graphics Design

## EXPERIENCE

### AGILITY SOFTWARE DEVELOPER | AGFA HEALTHCARE INC

Sept 2017 – Dec 2017 | Waterloo, ON

- Designed and implemented tools to load data onto a **medical dataset**, a central server for all the **medical images**, and monitor its **performance**.
- Used **Grafana** and **Influx DB** to create a **dashboard** to show the performance logs in, **real time**, for the medical server.
- Developed an **anonymizer** for patient and medical data to protect **privacy**.

## EXTRACURRICULAR

### TECHNICAL DIRECTOR | WATERLOOP

May 2017 - Present | Waterloo, ON

- Managed** development and **guided** the work flow of Waterloo's **hyperloop** team to compete in the **SpaceX hyperloop competition**.
- Built a memory-efficient **C++ STL** library for **AVR** chips, and a custom **memory management** solution for **safe and efficient memory access**.
- Developed **libraries** for all the **sensors** used on the pod.
- Created a **server** in **Go** to wirelessly communicate with the dashboard controller, and used **docker** to switch between devices for **redundancy**.

### VICE PRESIDENT | UW INDIAN CULTURAL ASSOCIATION

Jan 2017 - Present | Waterloo, ON

- Organized **meetup** and festival events for **Indian community** on the Campus.
- Interacted with various organizations for **sponsorship** and **event planning**.
- Lead the **Bhangra dance team** to **perform** at dance events throughout the year.

## PROJECTS

### WCOSA | AVR CREATE, BUILD, COMPILE, AND UPLOAD TOOL

- Developed in **Python** to make **AVR project development** simple.
- Added support for **CLion IDE** and **VS Code**.
- Provided the ability to customize **Make** path, **CMake** path and other parameters through the **configuration file** and **command line**.
- Included a Serial **GUI**, built in **Qt**, to monitor **Serial I/O**.

### CRYPTOLYZER | CRYPTO-CURRENCY INVESTMENT MONITORING TOOL

- Built a **server** in **Go** to store **investment data** to a **DB** and use said data to provide **reports and graphs**.
- Integrated **APIs** to fetch **transactions and prices** from exchanges.
- Added the ability to define **price targets** to automatically **buy** and **sell** coins in the portfolio when those targets are met.

### CYGROSK | 2D PLATFORMER BUILT IN JAVA

- Developed a **game engine**, **level editor**, and a **basic enemy AI**.
- Implemented **multi-frame animations**, **collision detection** and **camera movements** to enhance **user experience**.
- Implemented **character customization** by allowing users to choose from various **player models**.