

Ganan Sivagnanenthirarajah

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Skills, Tools & Abilities

- **Proficient in:** C++, C, Java, Python, HTML, CSS, JavaScript, PHP, MySQL, PowerShell & Microsoft Office
- **Tools Used:** Arduino, Raspberry Pi, Windows Server, cPanel, Visual Studio, Photoshop & Premiere Pro
- **Project Management:** Set deadlines, prioritized tasks and worked with sub-teams to complete projects
- **Leadership & Communication:** Led presentations and meetings for 100+ students, sponsors & judges

Experience

Technical Trainee

City of Toronto Water – Process Control Systems: Networking

Apr 2018 – Aug 2018

- Designed, built and implemented a web-based ticketing system for internal forms
- Prototyped a wireless relay to remotely control power to a Data Collection Unit with a web interface
- Assisted in various networking tasks such as replacing switches and mapping wireless connection

FIRST Robotics Team 6632 Founder, Former President, & Mentor

Northview Heights Secondary School

Jan 2016 - Present

- Led a team of 100+ members to a Rookie All-Star & Judges' Award in district level competitions
- Managed a \$40 000 budget by securing sponsors and grants for parts, trips and workshops
- Integrated pneumatics, motors, roboRIO (main controller) and power distribution panel
- Currently mentoring in designing, prototyping and building a 33"x28" base by 55" tall robot

Projects

Home-Cooked Food App

Tools Used: Lean Business Canvas, Android Studio, Java

Jan 2018

- Analysed market interest for international meals and created a business model to solve this issue
- Recruited individuals to prototype and develop an Android application which was sold to an investor

Linux Bluetooth Door Security System

Tools Used: C, C++, Onion Omega 2 (Microcontroller), BlueZ Library (Linux Bluetooth), Embedded System

Dec 2017

- Designed a proximity triggered security system that detected a mobile device to unlock a door
- Computed various statistics that were logged into a text file on an Onion Omega 2 in real time
- Developed Bluetooth features using Linux BlueZ library then programmed using C and C++

Space Shooter Computer Game

Tools Used: Java, Greenfoot, Object Oriented Programming (OOP)

Mar 2017

- Created a multi-level 2D game using Object Oriented Programming in Java aided by Greenfoot
- Implemented multiple user adjustable settings (i.e. difficulty) as well as a two-player mode

Whims App

Tools Used: Android Studio, Java, User Experience (UX) Methodology

Feb 2017

- Tested and modified the frontend for a social media start-up while recording feedback from beta users

Education

University of Waterloo

2017-2022

- Candidate for Bachelor of Applied Science – BASc, Electrical Engineering
- FIRST Robotics Alumni

Hobbies & Interests

- Entrepreneurship
- Investing/Trading Stocks
- Automation Projects