

# Bilal Khawar

## iOS Engineer & Web Developer

### WORK EXPERIENCES

#### iOS Developer

EcoBin  
Jan '18 - Apr '18

Developed an iOS application for the EcoBin Smart-Composter. Enabled communication of temperature readings from the Arduino to the mobile app via the **Core Bluetooth** framework. Implemented remote notifications to alert users of the composting process through the **Apple Push Notification service**. (*Website: [smartcomposter.github.io](https://github.com/smartcomposter)*)

#### Web Developer & Systems Analyst

McMaster University  
Jan '17 - Dec '17

Created a mobile-friendly and responsive web application using **Laravel** and **PHP**. Followed the **MVC** architecture. Designed and setup a **relational database** (MySQL) for the website. Used **Bootstrap**, **Javascript** and **jQuery** to develop front-end features. Implemented **authentication** and routed users according to their ranks.

#### Building Systems Co-op

Patheon Inc.  
Sep '15 - Aug '16

Controlled various settings of manufacturing equipments by **programming PLCs**. Made monthly **reliability reports** that tracked and analyzed equipment downtime and repair events. Made CAD drawings in **SolidWorks** for **CNC fabrication**.

### iOS PROJECTS

#### BearStacks Development

Co-founder of BearStacks Development. Helped launch four iOS applications on the App Store.

#### Scientific Calculator Pro\*

Implemented a stack-based algorithm for parsing mathematical expressions. Used Size Classes.

#### Type Fighter\*

A typing game that utilizes SpriteKit for game objects and GameKit for global leaderboards.

#### Find My Country\*

A geography game programmed in Objective-C, using a third party library (WhirlyGlobe-Maply).

#### Numtate\*

A puzzle game that uses UIKit Animations.

#### AR Drawing

A 3D drawing application that uses SceneKit objects to construct an Augmented Reality scene.

#### GitHub Commits

Uses Core Data to fetch and store GitHub commits.

#### Photo Sharing

A photo sharing app using MultipeerConnectivity.

\* Currently on the App Store

### SKILLS

Proficient in **Swift**, **Java**, **C**, **C++**, **Objective-C** and **Python**

Skilled in **iOS App Development**

Experienced in Full-Stack Web Development (**Laravel**, **PHP**, **React**, **Javascript**, **ES6**, **jQuery**, **Ajax**, **Bootstrap**, **HTML**, **CSS** and **MySQL**)

Good understanding of computer **data structures**, **algorithms**, and **software design patterns**

Knowledgeable in **Object Oriented Programming**, **Test-Driven Development** and **Agile Manifesto**

Familiar with **MATLAB**, **AutoCAD**, **SolidWorks**, and **Microsoft Excel**

### EDUCATION

#### McMaster University

Sep 2013 - Apr 2018

Bachelor of Engineering, Electrical

### AWARDS

#### Certificate of appreciation from the Government of Canada

Awarded for contribution to community

#### Most Valuable Player (Cricket)

Awarded for leadership and outstanding performance for the senior cricket team

### CONTACT

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