

# VARUN GUPTA

## 2A SOFTWARE ENGINEERING

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### + TECHNICAL SKILLS

**LANGUAGES:** Java (Android), Swift (iOS), C++, C, VB.NET, Python

**FAMILIAR WITH:** PHP, Bash, Objective-C, Scala, HTML, CSS, SQL, Sikuli X

**TOOLS:** Android Studio, XCode 7, Eclipse, Visual Studio, GitHub, Energia IDE (Embedded C)

### + EXPERIENCE

#### **Qualicom Innovations Inc. - Mobile Developer Co-op**

May 2016 to Aug 2016

North York, Ontario

- iOS (Swift + some Objective-C) app development - added new features such as PDF document e-signing for sold units using PSPDFKit and a grid view layout using UICollectionView.
- Optimized server data requests, led to performance improvement of 7 - 10 seconds while displaying list of available units.
- Android app development for online shopping apps - implemented new features such as a fashion mode for item browsing and dynamic layouts for different screen sizes.
- Migrated Django (Python) web application and set up a Linux development server for the web application.
- Authored documentation and created several Linux shell scripts to automate migration steps which reduced downtime during the migration process.
- Created Python scripts for test automation with Sikuli X and Robot Framework

#### **Shivom Computer and Graphics - Computer Technician**

2010 to 2015

Mississauga, Ontario

- Diagnosed and replaced hardware such as LCD screens, DC jacks, and motherboards.
- Resolved software issues (Windows, OSX) such as BSODs, kernel panics, and networking issues.
- Developed strong communication skills by attending to customer concerns and needs.

### + PROJECTS

#### **The Flying Stickman (Android) | Jun 2015 - Jan 2016**

goo.gl/h7KNF7

- A fly-and-shoot game optimized for different screen sizes and resolutions.
- Used OOP principles to model game entities and behaviours such as enemies, projectiles, and health.
- Debugged any bugs found through user testing via the Eclipse debugger after each update.

#### **Geese Invaders (C) | Oct 2015 - Nov 2015**

- Collaborated with 4 colleagues to make a space invaders game for the Tiva C LaunchPad microcontroller using Energia (Embedded C IDE).
- Utilized sensors such as a potentiometer and an accelerometer to control gun position, speed, and other game elements.

#### **Blackjack (VB.NET) | May 2014 - Jun 2014**

- Single player blackjack game with dealer AI and custom bets.
- Dealer AI conforms to blackjack rules using extensive decision structures and runtime variables.
- Robust design - can handle invalid user input.

#### **Concentration (VB.NET) | Apr 2014 - May 2014**

- Two player concentration game with up to 15 cards.
- Options for player names and number of cards each round.
- Implemented algorithms to generate VB PictureBox objects dynamically each round, display random cards with no repeats, and parse player-selected cards for match testing.

### + EDUCATION

#### **University of Waterloo**

Candidate for Bachelor of Software Engineering 2020

First Year GPA: 3.94 (92.5%). Currently building an assembler (MIPS ISA) and compiler in CS241E with Scala

### + AWARDS

#### **Dean's Honour List**

Apr 2016

University of Waterloo

Dean's Honour List recipient for both terms in first year.

#### **Governor General's Bronze Medal**

Oct 2015

Governor General of Canada

Ontario's Top Scholar List - 97.7% overall grade 12 average.

#### **Honour Roll in Canadian Computing Contest**

Feb 2015

University of Waterloo

Strong problem solving skills in programming challenges.

### + ACTIVITIES & INTERESTS

- Writing scripts to automate repetitive tasks.
- Playing sports such as Ultimate Frisbee, badminton, and soccer.
- Reading about new scientific discoveries and advancements.
- Watching new episodes of The Flash, Arrow, and Sherlock.