

# VARUN GUPTA

1B SOFTWARE ENGINEERING | STUDENT ID#: 20617394

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## SUMMARY

- Proficient in Java, C/C++, and VB.NET, including data structures, testing, and debugging code (via courses and projects).
- Mobile development experience via an independent Android game (published on the Play store).
- Five years of computer repair and troubleshooting experience.
- Excellent Microsoft Office skills (Excel, Word, PowerPoint).
- Strong communication, time management, and teamwork skills developed through volunteering and extracurricular activities.
- Motivated, versatile, and enthusiastic programmer.

## PROJECTS

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

- 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.
- Published on the Play store (with developer name A13).

### 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).
- Implemented data structures to keep track of bullets and geese, and utilized them to perform collision testing and game loop updates.
- 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

- One player blackjack game with dealer AI and custom bets.
- Dealer AI conforms to blackjack rules using extensive decision structures and runtime variable values (i.e. the cards dealt).
- 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 complex algorithms to generate VB PictureBox objects dynamically each round, display random cards with no repeats, and parse player-selected cards for match testing.

## SKILLS

**PROFICIENT IN:** Java, C, C++, VB.NET

**FAMILIAR WITH:** HTML, PHP, CSS, SQL

**TOOLS:** Visual Studio, Eclipse (Java), Eclipse CDT (C/C++), GitHub (Git), Energia IDE (Embedded C), Photoshop

## ADDITIONAL EXPERIENCE

### Shivom Computer and Graphics 2010 to 2015

Computer Technician

#### Responsibilities:

- Attend to service calls, diagnose and repair customer devices, provide customer support.

#### Achievements:

- Quickly grasped troubleshooting procedures.
- 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.

### IBT Team (Gordon Graydon Memorial SS Club) 2014 to 2015

#### Web & Tech Manager

- Collaborated with two colleagues to add, update, remove events, news items, and other content on the IBT website (using HTML, CSS, and PHP).

## AWARDS

### 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.

## EDUCATION

### University of Waterloo

Candidate for Bachelor of Software Engineering 2020

First Term (1A) average: 93%. Currently learning encapsulation, abstract data types, stacks, linked lists, and memory models.