

# Dominik Schmittlein

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## EDUCATION

**Bachelor of Engineering, Computer Systems Minor in Business, Co-op**      **September 2013 - Present**

Carleton University, Ottawa, Ontario

- Due to Graduate May 2018
- Third Year, CGPA 11.9/12.0, A+
- Scholarships and Award:
  - o Kanagasabapathy Scholarship 2015/2016
  - o C.C. Gibson Scholarship 2015/2016
  - o Dean's Honour List 2014 & 2015
  - o Dante Laurenzio Memorial Scholarship 2014/2015
  - o E. W. R. Steacie Scholarship 2014/2015
  - o NSERC Undergraduate Student Research Award 2014/2015

## AVAILABILITY

Available for 4 - 16 months beginning May 2016

## TECHNICAL SKILLS

- Proficient in Java, Android, C#, Python, C, XML, HTML, CSS, Git/Github, .NET, MATLAB, Linux, UDP, TCP

## EXPERIENCES

- Developed mathematical (trigonometric) algorithms in **Java**, for evaluating user clicks for Android DoYouEvenLift game; see "generateMap()" on [Code Reference](#)
- Connected 4 Raspberry Pis (server, player1 and 2, sound) using UDP in **Python**, in order to make 1-dimensional ping pong with user input from buttons and display on LEDs ([Code Reference](#))
- Implemented MVC framework on **Android** ([Code Reference](#)) and **Java GUI** app ([Code Reference](#)) in order to standardize model-view & controller-model communication
- Developed AI for Othello and TicTacToe on Android (**Java**), based on recursive algorithms, which evaluate all legal moves based on the resulting game board from simulating to future rounds ([Code Reference](#))
- Created swing GUI in **Java** for Langton's Ant simulation in order to experiment with Langton's Ant's movement patterns given varying initial conditions including multiple ants ([Code Reference](#))
- Used short yet complex algorithms for solving problems provided by Google Code Jam 2015 Round 1A ([Code Reference](#))
- Designed new flat themed GUI using **HTML**, **CSS** and **EXT.NET** tools and then implemented it across CaseWare's Monitor application. On [My Personal Website](#) see "CaseWare" under portfolio section
- Tested software – by writing Linux shell scripts in Vim – as part of research position in order to give feedback and prepare software for market
- Developed algorithms in **Java** for inserting into, deleting from, searching in and displaying a binary search tree which was the underlying data structure for implementing an alternative Dictionary (HashMap) data type ([Code Reference](#))
- Designed Android GUI in **XML** using multiple activities, drawer menus and user drawing input for DoYouEvenLift, TicTacToe, Othello apps

## **COMMUNICATION SKILLS**

- Teamwork: Contributed to monthly team design sessions at CaseWare for Monitor application's GUI; designed a history panel for work items which displays the history of actions performed on the respective work item
- Presentation: Presented summary of work completed and outlined future tasks in order to keep team members informed, as part of daily scrum routine
- Leadership: Acted as group leader for reverse engineering project in order to coordinate punctual and quality work for each section of the project
- Technical Writing: Wrote technical report and gave PPT presentations analyzing the functionality of resource provisioning software in order to communicate areas for improvement to software design team; topic of focus during 4 month research position in 2014
- Instructing: Instructed beginner and intermediate snowboarding to students aged 5 to 60 and communicated progress to parents of younger students, for 3 seasons
- Fluent in English, French, German

## **WORK EXPERIENCE**

### **Co-op Student – Agile Team**

**May 2015 – August 2015**

CaseWare International, Ottawa, Ontario

- Used HTML to manage layout on CaseWare's Monitor application in order to create consistent theme across all workspaces; consistency helped customers navigate Monitor more effectively
- Scripted CSS using classes and identifiers in order to create and apply new flat theme across Monitor application
- Created spritesheets – one file that contains many icons – using gimp in order to decrease load time of pages, by only loading 1 image file
- Worked on an Agile team, employing sprint methodology, in order to stimulate software development

### **NSERC Student Research Assistant**

**May 2014 – August 2014**

Carleton University, Ottawa, Ontario

- Analyzed the change in profit, of web services broker, associated with modifying market conditions and software settings – increased/decreased demand and changes in characteristics of demand – in order to pinpoint ideal markets and need for changes
- Scheduled, prepared and consistently attended weekly meetings with supervising professor in order to evaluate work completed and to set new goals for following week

## **VOLUNTEER EXPERIENCE**

### **RBC Bluesfest Volunteer**

**Summers 2013 – 2015**

RBC Bluesfest, Ottawa, Ontario

- Fulfilled fellow Bluesfest volunteers' food related wishes in order to create a rejuvenating environment for volunteers
- Coordinated tasks for team members to create clean and healthy volunteer tents