DAVID KNIGHT

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# RELEVANT SKILLS

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| PROGRAMMING |  | |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | Android | 4 years | Git/SVN | 2 years | SQL | 2 years | | Java | 4 years | JQuery | 2 years | HTML5/CSS3/JS | 2 years | | C/C++ | 4 years | Python | 2 years | PHP | 2 years | | |
| EDUCATION |  | UNIVERSITY OF WATERLOO | Honours Bachelor of Computer Science, Business Option  With Distinction (80%+ cumulative average)  *January 2013 – August 2015* |
|  | | CONESTOGA COLLEGE | Electrical Technician Industrial Ontario College Diploma  *September 2009 – May 2011* |
| RELEVANT COURSES |  | CS349 - User Interfaces  CS350 - Operating Systems  CS456 - Computer Networks  CS454 - Distributed Systems | CS446 - Software Design and Architecture  CS447 - Software Testing and Quality Assurance  CS348 - Introduction to Database Management  CS445 - Software Requirements and Specification |
| DEVELOPMENT |  | Experienced using version control management systems such as Git and SVN  Competent with test-driven methodologies and agile development  Experienced with object oriented and functional paradigms  Proficient with Software Architectural Styles and Software Design Patterns | |

# PROJECTS AND EXPERIENCE [github.com/d7knight](http://github.com/d7knight)

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| CHESS GAME  [git.io/vs6aH](http://git.io/vs6aH)  With a classmate in Object-Oriented Software Development (CS246), we developed a chess game written in C++ using X11 window system APIs. We collaborated using Git version control management system and used well known architectural styles and design patterns in the development of this project. |  | SCHOOL DIRECTIONS WIDGET  git.io/[vs6zo](http://git.io/vs6zo)  With a partner in User Interfaces (CS349), we developed a School Directions widget. We used HTML5, JavaScript, CSS3, JQuery and Mustache to create the widget. Furthermore, we followed the Model‐View‐Controller design paradigm and used Google Maps APIs and University of Waterloo APIs as external data sources. |
| DESIGN PROJECT – BEST FUEL  [git.io/vs6VU](http://git.io/vs6VU)  In a team of four within Software Design and Architecture (CS446) we pitched, developed and presented a mobile app named Best Fuel. Best Fuel is a gas economy tracking Android app which also allows users to find nearby food places and cheap gas stations. Our app uses Google Maps and Places APIs as external data sources. We also developed a Restful API to connect to our PHP/MySQL backend. From developing this project, we became skilled using Android Studio for android development and GitHub for collaboration. |  | INVOICER  [git.io/vs6Vn](http://git.io/vs6Vn)  One of my many side projects is an Android app named Invoicer. With Invoicer you can manage the products and services you sell, create an invoice, send an invoice with a generated email and finally view old invoices. In the development of Invoicer I followed the Material Design philosophy and guidelines. Furthermore, I built a flexible User Interface with the help of Android fragments. Invoicer will be available on the Google Play Store very soon. |
| CLIENT/SERVER IMPLEMENTATION  With a partner in Distributed Systems (CS454), we developed a simple RPC library. The library was developed in C++ and used TCP/Sockets for communication between the Client, Server and Binder processes. We worked cohesively as a team to complete the project two weeks earlier than required - including the bonus portion! |  | COMPILER  In Foundations of Sequential Programs (CS241), I created an assembler and a compiler for an example high-level language. I also competed in a compiler optimization challenge at the end of the term and finished in eighth place. |

[Completed Previous Interview Challenges](http://d7knight.github.io/Challenges)