

# DAVID KNIGHT

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## RELEVANT SKILLS

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) <i>January 2013 – August 2015</i>				
	CONESTOGA COLLEGE	Electrical Technician Industrial Ontario College Diploma <i>September 2009 – May 2011</i>				
RELEVANT COURSES	CS349 - User Interfaces	CS446 - Software Design and Architecture				
	CS350 - Operating Systems	CS447 - Software Testing and Quality Assurance				
	CS456 - Computer Networks	CS348 - Introduction to Database Management				
	CS454 - Distributed Systems	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](https://github.com/d7knight)

### CHESS GAME

[git.io/vs6aH](https://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.

### DESIGN PROJECT – BEST FUEL

[git.io/vs6VU](https://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.

### 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!

[Completed Previous Interview Challenges](#)

### SCHOOL DIRECTIONS WIDGET

[git.io/vs6zo](https://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.

### INVOICER

[git.io/vs6Vn](https://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.

### 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.