

BENJAMIN WILLMS

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Intent

I am looking to improve my knowledge of software systems and my coding skills, while gaining valuable real-world working experience. I would love to explore areas of programming I have not delved deeply into, such as UI's, the web, and back-end services.

Software Skills

Java | JUnit, Java Swing | 3 years

PHP | PHP Unit | 1 month

C++ | 2 months

Eclipse | 3 years

Visual Studio | 2 months

GitHub App | 2 years

Git Commands | Only when required

Competencies and Other Skills

- Problem Solving
- Solution Design
- Communication
- Math
- Word
- Excel

Learning in Upcoming Semester

- Python
- OCaml

Languages

English

French

Hobbies

- Guitar
- Videogames
- Singing
- Drums
- Hockey
- Badminton

Projects

Fall 2016

Design Principles and Methods Class Design Competition

Hardware Team Manager

- As a team of 8 with a 5-week timeline, we designed, built, and programmed a fully autonomous robot using the Lego Mindstorms platform, and LeJOS Java firmware.
- Once the hardware design was finalized, I wrote and debugged the Odometry Correction software, and helped the software team with debugging and improvements in the final week of the project.
- **Our team finished in 1st place for the competition.**

Winter 2017

Intro to Software Engineering Class Project

PC Java Application Team Leader

- As a team of 5, we designed, programmed, and tested a TA/Grader job management application for Android (Java), web (PHP), and PCs (Java, Java Swing).
- The process included an in-depth planning phase, with the creation of detailed UML diagrams.
- Notable project milestones included the software architecture design, quality assurance plan, and release pipeline.
- **Our team finished in the top 5.**

Fall 2017

Software Validation Class Project

Testing Team Member

- As a team of 5, we were tasked with planning, coding, and documenting System, Integration, and Unit tests for numerous classes in the Apache Commons Collections Java library.
- Notable test strategies used include Boundary Value Analysis, Kung et al. integration test strategy, and Control Flow Analysis.
- Test cases for the System and Unit testing phases were coded using Junit 4, and Jukito.

Education

DEC in Pure and Applied Science 2013-2015

Champlain College,
2580 Rue College,
Sherbrooke,
Québec

Received the program
award for Mathematics.

Bachelor of Software Engineering 2015-2019

McGill University,
845 Rue
Sherbrooke O,
Montréal, Québec

CGPA: 3.85/4.00

Dean's Honour List and
McCaig Family Scholarship
for the 2016-2017 school
year.

Notable Courses Taken

Algorithms and Data Structures Fall 2017	Studied algorithmic design techniques, such as Dynamic Programming, Divide and Conquer, and Greedy Algorithms. Also studied running time analysis.
Software Validation Fall 2017	Studied software testing techniques, including various black box, grey box, and white box techniques. Included object oriented testing considerations.
Intro to Telecom Networks Fall 2017	Studied many aspects of the internet, with a focus on protocols in the application, transport, and network layers.
Intro to Software Engineering Winter 2017	Studied basic software design principles, including architectural design, various UML diagrams, and requirements documentation.

Other Information

- Dual Canadian/American citizen.
- Secondary address: 1645 Rue des rigoles, Sherbrooke, QC, J1M2H2.
- References available upon request.

Work Experience

Summer Custodian May-September 2017	Bishop's University Residence and Conference Services Sherbrooke, Québec	<ul style="list-style-type: none">▪ Cleaned and maintained all residences on campus.▪ Provided hotel-like services to all customers.
Tree Planter June-July 2015	Folklore Contracting Ltd. Prince George, British Columbia	<ul style="list-style-type: none">▪ Improved my tolerance for tough working conditions and grueling hours.▪ Improved upon the ability to work productively with little-to-no supervision.
Dish Washer Summer 2013-2015	Sodexo, Bishop's University Sherbrooke, Québec	<ul style="list-style-type: none">▪ Served 2000+ customers in a cafeteria built for a maximum of 500 for 15 days in an 18-day period during the Canada Games.