

Edmond La Chance
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EDUCATION

2011 B.S, Université du Québec à Chicoutimi

2013 M.S, Université du Québec à Chicoutimi

2020 PhD, Université du Québec à Chicoutimi

Extended Combinatorial Testing using Graph Algorithms and Apache Spark

This thesis presents a generalization of t-way testing, reductions to graph coloring and vertex cover problems and distributed algorithms using Apache Spark. Experimental results were obtained using computer clusters provided by ComputeCanada.

WORK HISTORY

2015-2021 - Chargé de cours, Université du Québec à Chicoutimi

Classes taught:

2015-2021 | 8INF803 (Distributed Databases)

In 8INF803, students learn about distributed databases, crawling and distributed data processing. On the technical side, we mostly use Apache Spark, Scala and Python, but we also use JavaScript and MongoDB's MapReduce. We also show how to implement iterative algorithms with proper memory management and checkpointing.

2015 | 8GIF128 (Web programming)

In 8GIF128, we teach HTML, CSS, Javascript, DOM, REST and WebSockets. The final project is a website with several services, with WebSocket communication.

SKILLS

Favorite Programming Languages:

Modern C++, Scala, Java, C

I like high performance code in general, that interest started early with the study of assembly code for my C++ programs. Recently, I also have an interest in JVM and garbage collection techniques.

Writing:

Latex, HTML/CSS

As of late, I have enjoyed writing content for my D&D games. New spells, new classes, new intrigues, new items, new character backgrounds etc.

Favorite tools:

VSCode, PowerPoint, MSWord, SumatraPDF, yedEditor, mouseWithoutBorders

MISC

I love tabletop RPG games like D&D, Pathfinder and Call of Cthulhu.

I'm also a foosball amateur with some competitions under my belt, but no wins yet. Is foosball a sport? I think it is, but not everyone agrees with me :)

I love dogs, and I also speak French (my native tongue) and a little Japanese.

PUBLICATIONS

Extended Combinatorial Test Generation using Graph Reductions. Submitted in Software Testing, Verification and Reliability, March 2020, under review.

Graph Methods for Generating Test Cases with Universal and Existential Constraints. Springer Lecture Notes in Computer Science Volume 9447 (pp. 55–70).