

# Edmond La Chance, Ph.D

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[edmondlachance.com](http://edmondlachance.com) | [github.com/mitchi](https://github.com/mitchi) | [edmond.lachance@gmail.com](mailto:edmond.lachance@gmail.com) | [LinkedIn](#)

*Experienced Software Developer and Data Engineer with a Ph.D. in Software Verification & Cluster Computing. Currently building data products for Intelcom with dbt, Snowflake, Airflow, and Azure Cloud. Skilled in distributed systems, big data processing, and full-stack development.*

## Work History

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- **Data Engineer at Intelcom**

*November 2025 – Present*

- Design analytics models in dbt to serve parcel-operations stakeholders with curated Snowflake datasets.
- Build and operate Azure-based ingestion pipelines that capture telemetry from fulfillment systems into Snowflake.

- **Data Engineer at Yoppworks (contract for Bell Canada)**

*January 2022 – February 2025*

- Led data pipeline migration from on-premise Hadoop (Cloudera) to Google Cloud Platform for Bell Canada, processing terabytes of telecom data daily.
- Created a testable and cost effective data enrichment solution for Cloud Functions and Dataflow.
- Maintained and improved distributed data workflows using Apache Spark, Hive, Impala, Oozie, and Hadoop.
- Optimized ETL and ingestion tasks with bash, Python, awk, and sed, significantly improving pipeline efficiency.
- Supported observability and debugging through automation and scripting across large-scale distributed jobs.
- Worked on internal demo "ProjectX" for Canada Post, a delivery notification service. Built a Scala backend (`http4s, cats, doobie`) deployed on Kubernetes.
- Front-end work on the Dokn delivery app using React Native.

- **Software Engineer at Timesphere**

*August 2021 – December 2021*

- Full-Stack Engineer for Timesphere Application, used by SAQ (Société des alcools du Québec) for employee schedule management.
- Developed new features and fixed bugs in the Java Spring Framework backend.
- Ported existing features to the new React/Redux-toolkit frontend, improving user experience and application performance.

- **Lecturer, Université du Québec à Chicoutimi**

*2015-2021*

- Taught 8INF803 (Distributed Databases): Covered distributed databases, crawling, and distributed data processing.
- Taught 8GIF128 (Web programming): Modern web development, WebSockets.

## Education

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- **Ph.D in Software Verification & Cluster Computing**

*2013-2021*

Université du Québec à Chicoutimi

Thesis: Extended Combinatorial Testing using Graph Algorithms and Apache Spark

- **M.S**

*2011-2013*

Université du Québec à Chicoutimi

Thesis: Algorithms for the minimum spanning tree problem

- **B.S**

*2008-2011*

Université du Québec à Chicoutimi

## Publications

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**Journal Article:** La Chance, Edmond, and Sylvain Hallé. "An investigation of distributed computing for combinatorial testing." *Software Testing, Verification and Reliability* 33, no. 4 (2023): e1842.

**Ph.D. Thesis:** La Chance, Edmond. "Extended combinatorial testing using graph algorithms and Apache Spark." Ph.D. dissertation, Université du Québec à Chicoutimi, 2021.

**Conference Paper:** Hallé, S., La Chance, E., Gaboury, S. "Graph Methods for Generating Test Cases with Universal and Existential Constraints." In *Testing Software and Systems. ICTSS 2015*. Lecture Notes in Computer Science, vol 9447. Springer, Cham, 2015.

## Projects

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- **TSPARK – A distributed combinatorial test generator**

Open-source project developed for Ph.D. thesis. Written in Scala and Apache Spark. Implements the novel graph-based test generation algorithms described in my thesis.

- **CTL Model Checker**

Implements the CTL labeling algorithm for model checkers in C++.

- **Cerberus Spells**

Website for [Cerberus RPG spells](#). Publishing system for D&D spells. Built using React, MUI, Node, pandoc, LaTeX.

- **Cerberus Bot**

Discord bot for D&D combat written in Javascript.

- **Morphopoetic.com**

Website that hosts hundred of essays of Michaël La Chance, generated using a custom static website generator.

- **ASM FORUM**

High School project. Discussion forum implemented in x86 assembly language, CGI processes, and SQLite.

## Skills

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### Programming Languages:

- Scala, Java, C/C++, Python, JavaScript, TypeScript, x86 assembly

### Frameworks and Libraries:

- dbt, Apache Spark, Spring Boot, React, Redux Toolkit, React Native, Socket.io

### Cloud and Big Data Technologies:

- Azure Cloud, Google Cloud, Snowflake, Databricks, BigQuery, Hadoop, Hive, Impala, Oozie, Airflow

### Databases:

- SQL, Snowflake, SQLite, Postgres, MongoDB

### DevOps and Version Control:

- GitLab CI/CD, Docker, Git, GitHub

### Other Technologies:

- UNIX Shell Scripts, awk, sed, grep, HTML, CSS, LaTeX, Pandoc, JIRA, Slurm

## Certifications

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- **LightBend Certified Reactive Architect**

*Issued Jan 2022, Expires Jan 2025*