

# Mihai Nicolae

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**Email:** [m.nicolae91@gmail.com](mailto:m.nicolae91@gmail.com)  
**Website:** [mnicolae.github.io](http://mnicolae.github.io)

**Portfolio:** [github.com/mnicolae](https://github.com/mnicolae)  
**LinkedIn:** [ca.linkedin.com/in/mnicolae91](https://ca.linkedin.com/in/mnicolae91)

## Technical skills

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- **Languages:** C, C++, Python, Java, Bash, SQL, Perl, Racket, Haskell, Prolog
- **Web development:** JavaScript, HTML/CSS, Node.js, jQuery, AJAX, REST APIs
- **Databases (relational):** DB2, MySQL, PostgreSQL
- **Databases (non-relational):** MongoDB, LevelDB, dashDB
- **Version control:** Git, Subversion, ClearCase
- **Frameworks:** Hadoop, Express

## Education

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**University of Toronto**

September 2010 — April 2015

**Computer Science Specialist, Honours Bachelor of Science in Computer Science**

- Cumulative GPA: 2.84

## Experience

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**IBM Canada Ltd.**

July 2015 — Present

**Software Developer - DB2 Security**

- Currently working on DB2 for LUW security development.

**University of Toronto**

January 2015 — April 2015

**Undergraduate Research Assistant**

- Worked on Noema, a system for concept discovery that combines taxonomic information with full text description of concepts.
- Parallelized the Noema graph search using the Boost Graph Library (BGL) in order to achieve acceptable web application response times.
- Parallelized dictionary creation. The 180x speedup facilitated experiments of different heuristics to improve dictionary quality, and indirectly, search results.

**IBM Canada Ltd.**

May 2013 — August 2014

**Software Developer - DB2 Security (co-op)**

- Investigated the GSKit support of the PKCS#12 standard and symmetric key operations in order to confirm its suitability for the DB2 Native Encryption solution.
- Led the Functional Verification Test (FVT) for the DB2 Native Encryption solution. This was essential to the successful release of DB2 Native Encryption into dashDB in March 2014 and DB2 10.5 Fix Pack 5 in December 2014.
- Backfit the communication buffer exit libraries into the DB2 9.7 Fix Pack 10 release. This secured the DB2 and Guardium footprint at the two Fortune 1000 clients that requested the backfit in order to meet their security and compliance needs.

## Volunteer & Extracurricular Activities

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**IBM Canada Ltd.**

November 2015

**CASCON 2015 Workshop Co-chair & Staff**

- Presented a well-received (4.4/5.0 approval rate) 3-hours hands-on workshop surveying the DB2 native encryption feature available in DB2 for LUW.

## Publications

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Mihai Nicolae, Mihai Iacob. **DB2 LUW Native Encryption.**

In *Proceedings of the 2015 Conference of the Center for Advanced Studies for Advanced Research*, 2015.

All projects and others are available at [github.com/mnicolae](https://github.com/mnicolae)

References available upon request

Current as of: December 2015