

Mihai Nicolae

mnicolae.github.io

Technical skills

- **Programming languages:** Python, C/C++, Java, Bash, R
- **Web development:** Javascript (React, Node.js), RESTful APIs, microservices
- **DevOps:** Docker, Kubernetes, Jenkins, Ansible, Git, Linux
- **Data:** Apache Spark, Apache Hadoop, SQL

Education

University of Toronto

2010 — 2015

Computer Science Specialist, Honours Bachelor of Science in Computer Science

Experience

IBM Canada Ltd.

2017 — Present

Staff Software Developer - Watson Studio Local

- Improve user experience of Jupyter notebooks by implementing insert-to-code functionality to return Spark or Pandas Dataframes for JDBC and HDFS data sources.
- Enhance out-of-the-box capabilities of the Spark cluster by implementing support to import Spark application jars, JDBC drivers, and SSL certificates.
- Extend customization of runtime environments by implementing support to use Apache Spark version 2.2.1.
- Streamline the process to manage and install packages and libraries by implementing support to create and use custom runtime images.

IBM Canada Ltd.

2015 — 2016

Software Developer - Db2 Security

- Improve the usability and compliance of DB2 native encryption by adding support for centralized key management over the KMIP 1.1 and PKCS#11 standards.

University of Toronto

2015

Undergraduate Research Assistant

- Parallelized the graph search and dictionary creation for the Noema taxonomic system, resulting in 8x and 180x speed-ups.
- Project final report: <http://mnicolae.github.io/docs/CSC494Noemahandout.pdf>

IBM Canada Ltd.

2013 — 2014

Software Developer - Db2 Security (internship)

- Secure the successful release of DB2 native encryption by leading the functional verification test for this project, resulting in opening 50 code defects (60% of which were stop-ship).