Mihai Nicolae

m.nicolae91@gmail.com
(647) 239-4967
mnicolae.github.io

Technical skills

- **Programming languages:** Python, Javascript (expert), C, C++, Java (proficient), R (prior experience)
- **Web development:** JS frameworks and libraries, RESTful APIs, microservices
- **Software:** Linux, databases, Apache Hadoop and Spark
- **DevOps:** Docker, Kubernetes, Helm charts, Jenkins, Ansible, Git

Education

University of Toronto (September 2010 — April 2015)

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

Experience

IBM (January 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.
- Streamline the process to manage and install Scala, Python and R packages and libraries by implementing support to create and use custom runtime Docker images.
- Make build infrastructure HA by deploying it on Kubernetes with NFS distributed storage. Decrease build pipeline throughput by 4.5 times by implementing tmpfs caching of Jenkins workspace, compressing Jenkins artifacts with pigz.

IBM (July 2015 — December 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 (January 2015 — April 2015)

Undergraduate Research Assistant
- Parallelized the graph search and dictionary creation for the Noema taxonomic system, resulting in 8x and 180x speed-ups:
http://mnicolae.github.io/docs/CSC494Noemahandout.pdf

IBM (May 2013 — Aug 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).