# Vishal Kuo

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### Summary

- Languages: C++, Java, Scala, Python, Javascript, Objective-C, Assembly (ARM)
- Technologies: Hadoop, Spark, Kafka, Hive, Samza, MySQL, Android, and iOS
- Experienced with app development, MapReduce, machine learning, and distributed systems
- Leadership roles: Student Council President, Port Credit Solar Car Challenge Head Judge

## Experience

#### Software Developer

Paytm Labs, Toronto, ON: Jan 2016 - Present

- Optimized machine learning programs to increase merchant classification speed by 50% using Spark
- Developed improvements for real-time Kafka input from over 28 million customers using Samza
- Designed an internal metrics SDK in Scala and Python to improve data quality and processing speeds
- Wrote ingest processes to increase daily data throughput to over 1.5 TB

#### Software Developer and Automation Engineer

Toast Inc., Boston, MA: May 2015 - August 2015

- Created and optimized internal setup tools to decrease deployment speeds by 30%
- Developed internal data modeling tools to emulate sales from over 1000 restaurants
- Promoted to full-stack developer halfway through co-op term
- Increased testing coverage by writing 65% of total automation scripts

## **Projects**

Apache Samza github.com/apache/samza-hello-samza

- Added services to increase bootstrap reliability
- Developed daemon failure reporting feature

Breeze github.com/scalanlp/breeze

- Contributed functionality improvements to open source Breeze library, used in Apache Spark
- Over 1400 stars on github

SparkML github.com/vishalkuo/SparkML

- Developed a recommendation system for the Movie Lens dataset using Spark and Scala
- Utilized alternating least squares algorithm to achieve root mean squared error of less than 25%

Brakelight Backpack github.com/vishalkuo/arduinoBrakelightBackpack

- Wearable backpack that lights up upon detecting user deceleration. Allows user to indicate directions when turning
- Built using Arduino and Flora GPS

#### Additionally:

- Created a stock performance visualization tool using OpenGL and C++
- Developed official app for the Futures Revealed organization available on iOS and Android
- Developed Github tool using NodeJS that parses repository README's into JSON data
- See more at vishalkuo.com and github.com/vishalkuo

### Education

Candidate for Bachelor of Applied Science, Computer Engineering 2014 - Current: University of Waterloo, Waterloo, Ontario

Deans List, ranked 5<sup>th</sup> in class (2A Term)