## **JASON SINN**

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♥ Toronto, ON

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## **EXPERIENCE**

#### **Data Engineer**

#### **Paytm Labs**

## 2019 - Present

♥ Toronto, ON

- Responsible for real-time streaming pipeline (>50,000 QPS) of various event types into AWS S3 using Flink and Kafka.
- Setup new Amazon EMR cluster (> 15 nodes) for dedicated flink pipelines with Terraform and migrated existing jobs.
- Setup metrics and monitoring integration with StatsD ingestion into Datadog and Prometheus.

#### Data Engineer

#### AcuityAds

**2017 - 2019** 

♥ Toronto, ON

- Co-designed, implemented, and integrated new inventory system into core real-time bidding platform, processing > 1,000,000 QPS according to the OpenRTB standard.
- Wrote ETLs with spark (> 30 Nodes) for user segmentation (> 100 billion records) using HBase (> 100 nodes) and Aerospike (> 50 nodes).
- Co-designed and implemented ingestion of time-series video data (> 50 billion records) for analytics purposes.
- Implemented metric ingestion job (> 140,000 QPS) with spark structured streaming to InfluxDB.
- Built and set up reproducible hadoop stack on docker (including HDFS, YARN, HBase, MySQL, Kafka, and Cassandra) for system testing purposes.
- Implemented integration with Google's OpenRTB exchange into core bidders.

#### Research Assistant

#### ML Applications and Techniques Lab, University of Waterloo

**2016 - 2017** 

♥ Waterloo, ON

- Augmented the Wide ResNet machine learning model to improve resilience against adversarial examples created by the fast gradient sign method under the guidance of Professor Pascal Poupart.
- Explored various ideas related to neural network invariance with respect to spatial transformations.
- Ingested and analyzed a variety of data related to coupled human-environment systems in the vaccination and climate change space under the guidance of Professor Chris Bauch.
- Wrote whitepapers for all corresponding research.

#### 3ds Max - Game Engine Developer

#### **Autodesk**

**#** 2015

♥ Montreal, QC

- Created interfaces and pipelines for transformation of 3D architectural assets into game engine resources as a service.
- Implemented features, plugins, and interfaces for several products, including Autodesk Revit, Autodesk 3ds Max, and Autodesk Stingray.

## **EDUCATION**

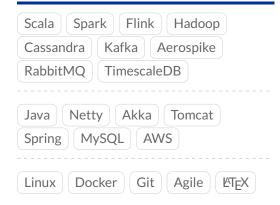
## B.Math, Computational Mathematics University of Waterloo

☆ Grad. Aug 2017

♥ Waterloo, ON

- Algorithms
- Data Visualization
- Computational Linear Algebra
- Network Flow Theory

## **TECHNOLOGY**



## **OTHER**

### Software Developer

#### **Fairfax Financial**

₩ 2015

♥ Morristown, NJ

# Software Developer - BES10 BlackBerry

**2013-2014** 

♥ Waterloo, ON

#### Software Developer

### Kira Talent

**2012** 

♥ Toronto, ON

## **RECREATION**

## Vice President & Instructor

#### **University of Waterloo Breakers**

**2013-2017** 

♥ Waterloo, ON

#### Rank #6 in Canada

World Rubik's Cube Association, Square-1

**2015**