

JASON SINN

@ jasoncsinn@gmail.com

✉ 55 McNicoll Avenue, M2H 2B1

📍 Toronto, ON

☎ 416-317-9368

🌐 github.com/jasoncsinn

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

Scala Spark Flink Hadoop

Cassandra Kafka Aerospike

RabbitMQ TimescaleDB

Java Netty Akka Tomcat

Spring MySQL AWS

Linux Docker Git Agile LaTeX

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