

# Jay Kodeswaran

SENIOR YEAR COMPUTER SCIENCE MAJOR

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## Skills

**Languages** Python, SQL, C++, C, Java, Scala, JavaScript, PHP, HTML/CSS

**Systems / Libraries** BigQuery, Databricks, Snowflake, MySQL, PostgreSQL, MongoDB, Redis, TensorFlow, Pandas, NumPy

**Frameworks / Tools** Spark, Hadoop, Airflow, Dagster, Kafka, Presto, Hive, Flink, Redshift, S3, Docker, Alembic, DBT, Git

## Work Experience

### Statsig Inc

Bellevue, WA

Data Engineer - Python, Spark, Databricks, BigQuery, Dagster

May 2023 - Present

- Will create and improve data ingestion flows and data tooling to optimize the in-house engine

### GTS

New York, NY

Software Developer - Python, C++, Airflow, MySQL, Docker

Sept 2022 - Dec 2022

- Scaled the risk system to manage **100+** portfolios by achieving **concurrency** and reducing the runtime of each portfolio by **38%**
- Redesigned the database schemas to follow **3NF**, alleviating **14%** of space usage and optimizing data pipeline runtimes by **6%**
- Enhanced the asset classification system by accommodating for **70+** OTC securities improving the value of risk accuracy by **2%**

### Wish

San Francisco, CA

Data Engineer - Python, Airflow, Spark, Hive, Presto

Jan 2022 - Apr 2022

- Engaged with data scientists to develop data models and pipelines that discovers up to **\$250,000** of chargeback fraud per week
- Created and maintained **20+** data pipelines, migrating **30+ GB** daily across different infrastructures (**MongoDB, Redshift, S3**, etc)
- Parallelized data flow, created partition schemes, and utilized optimal data engines to decrease the runtime of ETL pipelines by **23%**

### Equitable Life of Canada

Waterloo, ON

Software Developer - Python, PostgreSQL, Flask, Pandas, NumPy

May 2021 - Aug 2021

- Spearheaded the construction of a scalable batch processing system, increasing data-collection efficiencies **5x** and saving **\$24,000**
- Automated ETL processes across **millions** of rows of data, reducing manual workload by **18%** and processing times by **64%**

### Genellipse Inc

Mississauga, ON

Data Analyst - Python, MySQL, Pandas, NumPy, TensorFlow

Sept 2020 - Apr 2021

- Increased recruitment effectiveness by **15%** by developing a **deep neural network** that classifies members with **91%** accuracy
- Pioneered a reporting pipeline that transforms raw payroll data while maintaining **98%** uptime, saving **4+** hours a week

## Programming and Design Projects

### WatDFS

Systems Design Project - C++

[github.com/jaykodes/WatDFS](https://github.com/jaykodes/WatDFS)

- Built a **distributed file system** that utilizes an **upload/download model**, updates files using **freshness checks**, and makes **RPCs**

### Stock Bot

Big Data Project - Python, Airflow, Snowflake, Pandas, NumPy, TensorFlow

[github.com/jaykodes/Stock-Bot](https://github.com/jaykodes/Stock-Bot)

- Produced a **recurrent neural network** that predicts when to buy/short a stock using technical indicators from the previous **3** days

### Virtual Voice Assistant

Full Stack Project - Python, Javascript, HTML/CSS, Django, scikit-learn

[github.com/jaykodes/Alfred](https://github.com/jaykodes/Alfred)

- Developed a desktop assistant that uses **natural language processing** and **logistic regression** to identify and fulfill user needs

## Education

### University of Waterloo

Waterloo, ON

Candidate for Bachelor of Computer Science (3.7 / 4.0)

Sept 2019 - Apr 2024

- **Relevant Courses:** Machine Learning, Distributed Systems, Database Systems, Algorithms, Data Structures, Operating Systems