

JAMES CHOI

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EDUCATION:

Queen's University - Bachelor of Computing - Software Design Specialization April 2027

- Coursework: Data Structures, Algorithms, Machine Learning, Software Architecture, Operating Systems
- GPA: 3.7

EXPERIENCE:

Data Engineer Intern

May 2025 - present

Scotiabank

Toronto, ON

- **Developed and maintained 15+ dbt models in BigQuery** to transform and enrich **50M+ financial transaction records** from multiple sources, improving **data accessibility** and **reducing reporting latency by 40%**.
- **Fixed and optimized dbt models in BigQuery** by debugging transformation logic and validating outputs with **SQL queries**, resolving **90% of reported data issues** and increasing **data test pass rates to 95%**.
- **Designed and optimized ETL workflows on GCS + BigQuery**, leveraging **PySpark on Dataproc** to process **500GB+** of raw financial data daily, **reducing query costs by 25%** and **cutting pipeline runtimes by 40%**.

Software Engineer Intern

May 2023 - April 2024

FGF Brands

Toronto, ON

- **Architected** and implemented scalable **Python- and SQL-based backend microservices** using **Azure Logic Apps**, **Azure Functions** and **Cosmos DB** to ingest, parse, and normalize master-data feeds (**JSON, XML, EDI**) from **20+ EDI partners**, **10+ direct API customers**, and **5+ 3PL partners**, processing over **1500+ records daily** and **reducing downstream data errors by 30%**.
- Engineered **data-transformation pipelines in C# (.NET)** and **XSLT**, producing **20+ EDI/XML mappings**, complete with **unit tests** and **CI/CD via Azure DevOps**.

Machine Learning Engineer Intern

June 2021 - October 2021

ZeroOne AI

Toronto, ON

- Developed and deployed **LSTM-, CNN-, and GAN-based anomaly-detection models** for KT Corporation using Python/TensorFlow, and ML algorithms: **XGBoost, LightGBM, CatBoost**, achieving **95% test accuracy**.
- Developed Python scripts for data preprocessing—**cleaning and normalizing ~50K records for testing** and creating feature routines to **improve data quality by 25%** and speed up model training.

PROJECTS:

DataDream | React JS, Python, AWS (Bedrock, Lambda, S3, DynamoDB), Streamlit

May 2025 - Jul 2025

- Built an **AI-powered synthetic data platform** for the **GenAI Hackathon by Impetus & AWS** using **React, FastAPI**, and **AWS services**, achieving **85% data quality similarity** and processing **500+ records per minute**.
- Architected a **serverless data generation system** using **AWS Lambda, S3, and DynamoDB**, implementing real-time quality monitoring with **88% correlation maintenance** and integrating **AWS Bedrock for AI-powered synthetic data generation**.

WageWise | React, Flask, Scikit-learn, XGBoost, SQLite, Tailwind

July 2025 - present

- Developed a **full-stack web application for real-time salary prediction** using **Linear Regression, Random Forest**, and **XGBoost models**, implementing **feature engineering** and **model evaluation** techniques to enhance **prediction reliability**.
- Built an **interactive analytics dashboard** with **React, Chart.js**, and **Tailwind** to **visualize salary trends** and **model comparisons**, integrating a **Flask REST API** and **SQLite database** for efficient data management and real-time inference.

ACHIEVEMENTS/CERTIFICATES

AWS Certified: Cloud Practitioner (CLF-C02)

July 2025

AWS Certified: Solutions Architect (SAA-C03)

In Progress

SKILLS

Languages: Python, Java, Go, C#, SQL, YAML, JavaScript, HTML/CSS, TypeScript

Frameworks & Platforms: Azure: Logic Apps, Data Factory, Functions, BizTalk, Apache Airflow, Docker, dbt,

GCP: Google Cloud Storage, BigQuery, Cloud Composer, Dataproc, AWS: Lambda, S3, DynamoDB, API Gateway,

Bedrock, CloudFormation, FastAPI, RESTful API, React JS, PySpark

Developer Tools: Git, VS Code, Visual Studio, Azure DevOps, JIRA, Confluence, Docker, Kubernetes, AWS Cli

Libraries & SDKs: TensorFlow, pandas, NumPy, scikit-learn, OpenAI SDK, matplotlib