Taylor Dickson

Senior Backend Engineer · Platform Architecture & API Integration

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Summary

Senior Backend Engineer with 7+ years building scalable APIs and integration platforms that connect critical business systems, eliminating $300K+ in annual licensing costs through modern Python-based architectures. Deep expertise in FastAPI, RESTful services, and third-party API integrations, with proven success designing resilient data pipelines processing millions of records for government decision-makers. Experienced technical leader mentoring engineering teams while architecting cloud-native solutions on Azure, implementing CI/CD pipelines, and transforming legacy systems into maintainable, API-first platforms.

Skills

Backend & API Development	Python, FastAPI, Flask, Django, RESTful APIs, Microservices Architecture
Integration & Data Pipelines	Third-party API Integration, ETL/ELT Pipelines, DBT, Azure Data Factory, Entity Resolution
Cloud & Infrastructure	Azure, Docker, CI/CD Pipelines, Linux Administration, Terraform (IaC), Shell Scripting
Architecture & Design	API-first Design, Distributed Systems, Data Modeling, Performance Optimization, Scalable Services
Leadership & Mentorship	Team Leadership, Code Reviews, Technical Mentoring, Cross-functional Collaboration, Agile

Experience

Data Engineer — Platform & Integration Focus

Toronto, Canada

Ontario Public Service — Ministry of the Attorney General

2024 — Present

- Eliminated $300K+ in annual IBM Cognos licensing costs by architecting and implementing Python-based DBT data platform, providing maintainable, modern solution that feeds critical reporting for government decision makers including courts and legislators throughout the 7-year, $160M+ court system migration.
- Optimized Azure cloud infrastructure (Databricks, ADF) through performance tuning and configuration management, reducing data pipeline build times and improving processing efficiency for millions of rows of court data.
- Built analytics system processing judicial data from centralized court reporting systems, serving as the critical data layer that enables government decision-makers to track case flow across 150+ provincial courts.
- Implemented CI/CD with Azure Dev featruing protected main branch, automated testing, and feature-based workflows, reducing senior staff workload while ensuring code quality and safe deployments.
- Designed data warehouse supporting reporting across Ontario's entire court system, enabling executive and public reporting that directly informs multi-million dollar investments in court operations.

Data Engineer/Team Lead

Toronto, Canada

Ontario Public Service — Treasury Board Secretariat

2019 — 2024

- Developed RESTful API-based data cleaning tools using Python/Flask and Vue.js that saved weeks of manual processing for 5 users, dramatically improving data quality for critical government operations.
- Led team of 5 engineers through complex organizational changes, maintaining team productivity and technical delivery despite shifting stakeholder priorities.
- Architected Azure cloud infrastructure serving hundreds of internal government users, ensuring 100% availability for critical data access and analytics operations.
- Eliminated high-risk legacy MS Access databases and manual data replication previously managed by single person, creating scalable automated pipelines for multi-million dollar union contract negotiations.
- Transformed unusable government data through entity resolution algorithms (Levenshtein, NLTK), making previously unworkable datasets actionable for policy and decision-making.

Workforce Analyst

Toronto, Canada

Ontario Public Service — Ministry of Government & Consumer Services

2017 — 2019

- Developed automated document generation system processing 7,000+ customized reports by integrating multiple data sources through Python and SQL, reducing manual processing time by over a month.
- Built comparison tools analyzing 1,400+ job classification documents, identifying and eliminating duplicates that posed legal risks and preventing conflicting classifications across government positions.
- Maintained critical MS Access database serving 20 concurrent users, implementing corruption recovery procedures and ensuring continuous data availability despite frequent network interruptions.