Alvin Lee

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SUMMARY

Data Engineer with 2+ years of product development experience at PepsiCo, specializing in large-scale systems and e-commerce data infrastructure. Recognized as global Terraform SME and architect of enterprise-scale solutions serving millions of users across all eCommerce applications.

TECHNICAL SKILLS

Languages: Python, SQL, C++, Java, Julia | **Cloud:** AWS S3, Azure Blob, Docker, Kubernetes, Terraform, Snowflake | **Data Tools:** DBT, Apache Airflow, NumPy, Pandas

EXPERIENCE

Software Engineer - Data Platform, *PepsiCo*   **July 2023 – Present**

- Engineered enterprise-scale RSA key rotation system using Terraform and Azure Key Vault, automatically rotating 200+ Snowflake service keys monthly via CI/CD pipeline while maintaining zero-downtime through consistent secret naming conventions
- Established infrastructure-as-code standards as Terraform SME, mentoring 15+ engineers and building reusable modules that streamlined complex global account management workflows, reducing infrastructure provisioning time by 60% across enterprise teams worldwide
- Built self-service data platform integrating Jira Service Management, GitHub webhooks, and Snowflake APIs, automating provisioning workflows through Airflow-orchestrated data synchronization, reducing manual provisioning from two days to under one hour
- Led data platform integration for acquired brand, consolidating disparate data pipelines and sources while implementing PII compliance through secure hashing protocols
- Managed DBT repository infrastructure and led DBT version upgrades, ensuring pipeline reliability across analytics workflows

Software Engineering Intern - Data Platform, *PepsiCo*   **May 2022 – Aug. 2022**

- Built monitoring and alerting system tracking pipeline performance metrics using Python and SQL, enabling proactive issue detection and reducing mean time to resolution by 40%

PROJECTS

Snowflake Analytics MCP Server

- Built comprehensive MCP server alongside Claude Code featuring 15+ analytics tools for Snowflake cost optimization, security monitoring, and anomaly detection using Python, FastMCP, and pandas
- Implemented enterprise-grade security architecture with RSA key authentication, query validation, and schema-level access controls to prevent unauthorized database access

Syncify

- Built cross-platform music migration service using Python to integrate Spotify and Apple Music APIs, implementing ISRC-based matching algorithm with 95% success rate, OAuth authentication, and intelligent rate limiting

EDUCATION

New York University - B.A. in Mathematics and Computer Science   **May 2023**
Relevant Coursework: Probability, Statistics, Linear Algebra, Optimization, Data Structures, Algorithms