

ELVIS SIERRA

SOFTWARE ENGINEER - DATA

Contacts:
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PERSONAL SUMMARY:

Senior backend/data engineer with 6+ years of experience turning raw data into reliable products—ETL pipelines, search services, and analytics tools—while driving cross-team collaboration, clear documentation, and continuous improvement. Bias toward action and experimentation, comfortable exploring new problem spaces, and focused on shipping solutions that teams can actually use.

TECHNICAL:

Languages: Python, SQL, JavaScript

Data & Analytics: Pandas, ETL design, data validation, reporting automation

Data & Automation: Selenium, Keynote automation, Excel

Frameworks: Django, FastAPI, Flask, Vue.js, GraphQL

Databases & Storage: PostgreSQL, MySQL, ElasticSearch / OpenSearch, AWS RDS, S3

Cloud & DevOps: AWS (ECS, EC2, S3, Lambda, API Gateway, CloudWatch), Docker, Git, CI/CD (GitLab CI), Atlassian Suite, Postman

SKILLS:

Cross-functional collaboration · Adaptable & growth-minded · Proactive & accountable · Clear written documentation · Earnest, direct communication

EDUCATION:

University of Houston-Victoria
- Associate of Applied Science in Engineering

EXPERIENCE:

Data Engineer, Apple Maps.

April 2025- Present

- Owned ETL-style pipelines in Python/Pandas to ingest data from CSVs/JSON and Postgres, normalize it, and write cleaned outputs back to Postgres, internal databases, and CSV artifacts for reporting.
- Standardized pipelines into single orchestrated scripts (local and Dockerized) with reusable extract/transform/validate/export modules and built-in assertions, row-count checks, and sanity validations to catch bad data early.
- Automated recurring analytical Keynote reports using Python, turning ad hoc CSV wrangling into reproducible workflows for time-sensitive stakeholder updates.
- Established and maintained extensive documentation (~60% docs / 40% code) in Confluence and repo Markdown, including step-by-step guides and config-driven patterns that let non-engineers define and run their own reports and ad hoc analyses.
- Tech: Python, SQL, Pandas, Selenium, Keynote

Software Engineer, Media Co-Lab

March 2024 – Jan 2025

- Designed and implemented Postgres schemas for core entities (users, organizations, teams, media, labels, comments, sessions) and exposed them via GraphQL APIs supporting filtering, sorting, pagination, and rich relations.
- Improved performance of data-heavy GraphQL queries by optimizing access patterns and adding targeted database indexes, and deployed the application as Dockerized services on AWS EC2 across dev/stage/prod environments.
- Built an internal stakeholder evaluation tool that turned data-scientist concepts into working prototypes, enabling stakeholders to test ideas, assess impact, and green-light features for controlled release to trusted customers.
- Integrated an OpenAI-powered in-app assistant that used onboarding flows and database-backed context to answer user questions and guide them to existing and new features, improving feature discovery and reducing friction.
- Tech: Python, Django, JavaScript, Vue, SQL, Docker, GraphQL, OpenAI

Sr. Backend Engineer, Onward

Sept 2022 - Feb 2024

Led backend and search development for a content/search and analytics platform supporting data science learning and contest hosting, modeling users, tickets, documents, and field-study results.

- Improved search relevance and coverage by ~80% by redesigning indexing strategies in ElasticSearch/OpenSearch and normalizing source data before indexing, reducing time-to-result and returning more relevant documents per query.
- Integrated OpenAI-powered recommendations and Q&A over document and product/subject data, storing responses and feedback for later analysis and iteration on relevance and experience.
- Built and operated containerized services on AWS (ECS, RDS, S3, Lambda, API Gateway) with GitLab CI/CD pipelines, and provided senior-level technical leadership through architecture docs, API specs, onboarding guides, and code reviews with globally distributed teams.
- Tech: Python, Django, PostgreSQL, Docker, AWS, GraphQL, OpenAI

Software Engineer/ Team lead, Caterpillar Inc.

Mar 2018- Aug 2020

- Architected and developed a performance management platform that surfaced key operational metrics and boosted measured effectiveness by ~65%, significantly reducing time and cost.
- Leveraged data insights to propose workflow improvements and drive consistent productivity gains, while evaluating emerging technologies and documenting system optimizations.
- Led cross-functional collaboration among diverse teams to align on feature requirements and deliver high-impact, data-informed solutions.
- Tech: Python, Flask, MySQL, HTML/CSS