

Alejandro Peña

Software engineering

Austin, Texas | contact@adpena.com | adpena.com | github.com/adpena

I build data pipelines, research tools, and web applications. My work combines Python and SQL development, public data acquisition, and experience delivering research for policy teams.

Skills

Python, SQL, TypeScript, React, Django, Flask, PostgreSQL, SQLite, DuckDB, pandas, Polars, Selenium, aiohttp, Git and automated testing.

Experience

Founder & Principal Consultant

Data for Public Education | October 2024-present

- Built teadata, an open-source Python engine for Texas education data, with SQLAlchemy/PostgreSQL persistence, validation, and versioned sources.
- Built dataforpubliceducation.com with Django and PostgreSQL: district and campus profiles, maps, research workspaces, and controlled exports.
- Automated statewide workbooks and 35 district PDFs for Texas AFT's HB 2 analysis, documenting data anomalies and fallback rules.

Government Relations Specialist & Policy Analyst

Texas AFT | November 2021-January 2025

- Built CharterCostTracker's collection, reconciliation, and reporting pipeline with Python, Selenium, aiohttp, and automated spreadsheet/Word/PDF output.
- Produced a fiscal dataset for 1,023 districts over five years with school-finance experts; preserved metadata and separated observed transfers from estimates.
- Wrote the 2024 Lost Decade and a Half report, conducted its analysis, and built responsive district tables.

Legislative Director

Office of State Rep. Eddie Rodriguez | January 2017-November 2021

- Directed research, constituent services, communications, and stakeholder work; drafted legislation and managed aides and session deadlines.

Legislative Aide & Digital/Communications Director

Rep. Trey Martinez Fischer / Mexican American Legislative Caucus | 2013-January 2017

- Advanced from intern to legislative and communications roles; managed websites and newsletters and supported policy research and constituent correspondence.

Selected work

Molt

Developing a compiler for a supported subset of Python, with native and WebAssembly targets and a working compiled browser example.

comma.ai compression challenge

Ongoing lossy video compression work. Submissions PR 107, PR 110, and PR 140 have appeared on the leaderboard at different points.

Travis County Voter Data

Python/Go and SQL development for ingestion, matching, geocoding, search, maps, and exports over county voter-registration and election-history data.

Education & certification

Rice University - B.A. in Political Science; Minor in Business, May 2013. Presidential Scholar.

PCAP - Certified Associate in Python Programming, 2019.