Christian Valenzuela

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Skills

- **Languages**: Python, R, JavaScript/TypeScript, Node, Bash
- **Databases/Datawarehouses**: PostgreSQL, MySQL, MongoDB, Google Firebase, Google BigQuery
- **Data Orchestration**: Airflow, dbt, Superblocks, DNC Portal
- **Cloud Services**: Amazon Web Service (S3, Lambda, Cognito), Azure (Container Apps, Functions), Google Cloud Platform (Cloud Functions, Container Registry, Storage Bucket)

Experience

Analytics Engineer, Democratic National Committee, *May 2024 – November 2024*
- Led direct engineering support for all battleground states, supporting over 15 data directors and over 40 data engineers across the campaign.
- Created and orchestrated data pipelines in dbt and Airflow for identifying leads for prospective volunteers and canvassing opportunities.
- Maintained the campaign's Google Cloud Functions to implement feature requests, improving reliability and consistency.
- Leveraged the Jira/Slack APIs to automate task delegation, facilitating the rapid onboarding of volunteers in the final stretch of the campaign.
- Scraped county websites to obtain real time, precinct-level vote counts to be ingested by our data pipelines during election night reporting.

Data Engineer Consultant, UC Santa Cruz, *July 2024 – October 2024*
- Instructed a team of researchers in implementing better code hygiene, leading to higher data consistency and improved documentation.
- Lowered the time of the data ingestion step by over 89% by caching results and performing bulk operations when hitting the OpenAlex API.
- Performed expensive calculations in R across millions of records, saving researchers days-worth of work to focus on final analysis in Stata.
- Created a python script that leveraged ChatGPT to summarize a series of research papers, saving hundreds of man hours of manual work.

Data Engineer Consultant, Politarian, *November 2023 – May 2024*
- Optimized web-scraper performance by caching results requiring expensive computation, decreasing serverless function runtime by 18%.
- Configured AWS EventBridge Scheduler and serverless functions to run jobs on a schedule, freeing client from having to run scripts manually.
- Implemented more verbose logging and exception handling, improving observability on the different stages of the scraping process.
- Extended the scraper to retrieve previously inaccessibly content with Selenium, increasing the number of matched records by more than 14%.

Full Stack Engineer Consultant, South Coast College, *January 2022 – March 2022*
- Authored an interactive leaderboard for real time words per minute rankings for the college's stenography program.
- Performed business analysis with college administrators, students, and other stakeholders.
- Implemented a ReactJS frontend and NodeJS backend architecture for simplicity, composability, and scalability.
- Deployed application via Azure and designed a CI/CD pipeline to decrease deployment times and catch errors in development.

Data & Analytics Manager, LA Promise Fund, *March 2020 – May 2024*
- Designed and implemented an efficient data pipeline for ingesting raw academic data from the Los Angeles Unified School District (LAUSD) spanning millions of records.
- Delivered mission-critical academic reports and other data products for the National School Improvement program, providing insight into student academic performance for several principals across the Slate-Z/South Los Angeles region.
- Successfully negotiated the renewal of the organization's data memorandum with LAUSD by outlining a clear mission and delivery timetable of data products to stakeholders both in the school district and across our departments.
- Extended features in our Student Information Systems (PowerSchool) by writing custom plugins in SQL, NodeJS, and Python, automating data delivery to key vendors supporting our schools.

Education

University of California, Los Angeles
Bachelor of Arts, Political Science & Economics**,** June 2017

Antelope Valley College
Associates Degree, Liberal Arts and Sciences II**,** June 2013