Charlie Pecora

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EXPERIENCE

Levelten Energy — Seattle, WA

Lead Software Engineer — *May 2023 – Present*
Senior Software Engineer — *May 2022 – May 2023*

- Led design and implementation for migrating renewable energy marketplace analytics processing to a distributed architecture using Cloud Run, Dataflow, Cloud Tasks, and Cloud Storage, resulting in a 10x improvement in processing time and reduction of on-call incidents from bi-weekly to near zero
- Led a six-month, multi-team effort to replace the methodology used for renewable energy financial analytics in our platform, developed using feature flags and released in phases to ensure a smooth delivery
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Blue Origin — Kent, WA

Developer - Data and Business Intelligence III — *September 2020 – May 2022*
Developer - Data and Business Intelligence II — *September 2020 – May 2022*

- Created and scheduled ETL pipelines in Dagster to extract data from relational databases, REST APIs, GraphQL APIs, ElasticSearch, and shared drive files
- Wrote SQL data transforms using DBT in PostgreSQL to support analytics and reporting needs
- Developed a part shortage report, which takes user inputs as configuration and calculates inventory shortcomings by analyzing design, inventory, manufacturing, and procurement data, and is now the company's   trusted source for identifying hardware shortages and supports roughly 50 regular users
- The part shortage report is composed of a web interface for user input (Vue front-end and FastAPI back-end), a background data processing service (Python with Redis for query caching), and a Tableau report
- Developed a Python REST API using FastAPI to provide Design Engineers with automated access to up-to-date material properties from the company's materials database
- Automated code and infrastructure deployment to AWS using Docker, Terraform, and Gitlab CI

APiJET — Seattle, WA

Systems Engineer — *June 2018 – August 2020*

- Created a data pipeline using Python, PostgreSQL, cron, and AWS S3 to decode avionics data and make it readily available for batch analytics processing
- Used the data pipeline to implement logic for real-time aircraft alerting and reporting logic
- Developed algorithms to determine an aircraft's deviation from its flight plan
- Managed the network and hardware configuration within the avionics system integration lab
- Performed and documented system integration testing for the airborne software platform

SKILLS

Languages: Python, JavaScript, Golang, Rust

EDUCATION

University of Washington — Seattle, WA

Master of Science in Aeronautics and Astronautics — *September 2016 – June 2018*

University of Miami — Coral Gables, FL

Bachelor of Science in Mechanical Engineering, Minor in Economics — *August 2012 – May 2016*