

Christopher Pipitone

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Skills Summary

Backend engineer who builds and ships software: APIs, data pipelines, and Django apps, with the production depth to keep them running. Sole engineer on OVGIP, the multi-OEM vehicle-grid platform whose research underpinned the BMW/Ford/Honda ChargeScape LLC joint venture. Works in Python, PHP, and C++ across AWS and PostgreSQL.

Technical Skills

Languages: Python, C++, PHP, JavaScript, TypeScript, SQL, Bash

Backend: Django, FastAPI, REST APIs, Node.js, OpenADR; PostgreSQL, DynamoDB, SQLite

Cloud / Infra: AWS, Docker, IaC (CDK v2 TypeScript), GitLab CI/CD

Other: OAuth 2.0 PKCE, JWT, Cognito; React, HTMX, Stimulus

Work Experience

Pixida USA Inc. | Remote, NY Dec 2022 – Present
Software Engineer

EV Charging Platform — OVGIP (Open Vehicle-Grid Integration Platform) Dec 2022 – Present

PHP · Python · PostgreSQL · Apache · Amazon Linux · AWS (EC2, S3, Backup, Route53) · OpenADR · Bash · Git

- Sole engineer on OVGIP, a multi-OEM vehicle-grid platform that processes EV charging and pricing data for up to 17 utility partners and 3 OEMs (Ford, BMW, GM). Its research underpinned ChargeScape LLC, the BMW/Ford/Honda joint venture.
- Built a custom data pipeline to onboard three new utilities. It depended on a long-running message-queue daemon (System V IPC) that stalled under production load and dropped data; I traced the cause and tuned the queue to handle thousands of pricing and enrollment entries a day without loss.
- Extended the platform's enrollment, tariff, dynamic-pricing, and OpenADR demand-response flows for new business requirements: added and reworked alerting, stood up new partner instances by configuration, and modernized older parts of the codebase.
- Ran the platform's AWS setup (EC2, S3, Route53) and its EPRI-derived OpenADR components, and handled the secure partner data exchange: mTLS, per-partner SFTP isolation, and certificate provisioning scripted in Bash.
- Wrote Python scripts for data ingestion and partner integration at ChargeScape.

Fleet Management Dashboard Dec 2023 – Present

Django · Python · PostgreSQL · React · Node.js · AWS (ECS, RDS, S3) · Docker · HTMX · Stimulus · GitLab CI/CD

- Backend engineer on the rebuild of this municipal snow-clearance dashboard in Django (~75 routes across 5 districts), which I first built solo as a React/Node.js prototype before it grew into a team production project.
- Added a multi-stage vehicle and driver inspection workflow: sequential forms that move through states and end in a pass/fail report covering ~30 drivers and ~40 vehicles. The client had an inspection event on the calendar, so it had to be built, tested, and in production inside about six weeks; it shipped on time.
- Wrote the Django ORM aggregation (Subquery, OuterRef, annotations) behind the real-time operations overview, where managers track per-district progress, driver and vehicle availability, and repair status across large PostgreSQL tables.

Smart Bus Display Jan 2023 – Dec 2024

React 17 · Node.js · AWS (Lambda, API GW, DynamoDB, S3, CloudFront, Cognito, RDS Aurora) · CDK v2 TypeScript · GitLab CI/CD

- Led and built a real-time kiosk display for public bus shelters, pulling from 4 external transit APIs. All infrastructure was code (CDK v2 TypeScript), with OAuth 2.0 PKCE auth through Cognito and localization in English, Spanish, and French.

Education

City University of New York, College of Staten Island | Bachelor of Science in Computer Science | 2022