

# Jared Lemler

Pacifica, CA | [jaredlemler.com](http://jaredlemler.com) | <https://github.com/JL037> | <https://www.linkedin.com/in/jaredlemler/>

## **PROFESSIONAL SUMMARY**

Backend Engineer with a craftsman's approach, 8 years in electrical systems, now building software systems that are safe, reliable, and maintainable. My electrician background honed my systems thinking. I had to coordinate teams, read complex plans, and build an infrastructure that can't fail. I bring the same patience and troubleshooting discipline from wiring buildings to designing APIs, databases, and containerized services.

Technically grounded in Python/FastAPI and TypeScript/Fastify, with production experience in PostgreSQL, Prisma, Docker. Recently architected VoxPort, a federated podcast platform on the AT Protocol, where I built high throughput data pipelines (1,000 event queues, 100 event batching, 95% I/O reduction) and learned to operate under real-world constraints. I work with honest communication, clear ownership, and passion for contributing to teams.

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## **PROJECTS**

### **VoxPort (<https://voxport.live>) - Podcast Platform built on the AT Protocol**

- Zero-Downtime AT Protocol Federation: Built resilient WebSocket consumer surviving 10+ reconnection cycles with bounded memory backpressure (1,000 event cap), processing 7+ collections with 100 event batching. Achieved ~95% I/O reduction vs. naive per event persistence.
- Engagement Analytics Engine: Built hourly velocity aggregation system tracking engagement across 1 hour to 168 hours (7 day) windows using a weighted scoring algorithm (follows=10x, likes=1x, mentions=5x) for real-time trending detection via hourly scheduled jobs.
- Memory Optimized Cursor Tracking: Eliminated per event DB writes via in-memory cursor with 5-second flush intervals, reducing database round trips by ~95% during high volume ingestion.
- Relational Data Architecture: Designed 15+ entity normalized schema with time-series aggregation tables for historical trend analysis.
- Scalable Media Infrastructure: Integrated Cloudflare R2 for content-addressed blob storage, mapping CIDS to AT Protocol records for verifiable media distribution across federated nodes.
- Backfill Migration System: Developed ETL pipeline for migrating legacy content to AT Protocol, supporting bulk series/episode migration with dry run validation and error tracking.
- Zero-Trust Audio Security: Implemented magic-number file validation (not extensions), ffmpeg metadata stripping, and 450MB limits. Blocking spoofed uploads while preserving creator metadata privacy.

### **Travel Wishlist <https://www.travelwishlist.app> (Location-Based Travel Planner)**

- Architecture & Design: Built with FastAPI, PostgreSQL, and Docker. Implemented JWT authentication, Pydantic validation, and a reusable CRUD service layer.
- Weather API Integration: Built city-based weather lookup system integrating external weather APIs with 100ms response times.
- Calendar-Based Itinerary System: Created monthly/agenda calendar views for trip planning with date-based organization of saved cities and travel scheduling.
- Interactive Map Feature: Mapping layer for geographic visualization of saved destinations.

## **SKILL OVERVIEW**

- **Languages:** Python, JavaScript, TypeScript, SQL
  - **Databases:** PostgreSQL
  - **Data & ETL:** Pandas, Pydantic Validators, Scheduled Jobs (hourly/daily), batch processing, CSV Ingestion, JSON Pipelines
  - **DevOps & Tooling:** Docker, Alembic, Git, GitHub, JWT, pytest, Node.js, Sentry observability, OpenTelemetry tracing, structured logging
  - **Cloud & Infrastructure:** AWS (EC2, Elastic Beanstalk, S3), CI/CD (CodeQL, Gitleaks, Bandit), Cloudflare R2 (content-addressed storage), Hetzner
  - **Core Competencies:** REST API Design, Authentication & Authorization, Data Modeling, Distributed Systems, AT Protocol, WebSocket, Real-time Event Processing
  - **Frameworks/Libraries:** FastAPI, Fastify, SQLAlchemy 2.0, Pydantic, Django, React, Prisma ORM
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## **PROFESSIONAL EXPERIENCE**

### **Talk — Backend Developer (Self-Employed)**

*Pacifica, CA · Jan 2025 – Present*

*(Social Connection Platform – Netherlands)*

- Developed and deployed a privacy-compliant web app supporting 200+ university students using React, Vite, Tailwind, and FastAPI backend integrations.
- Translated founder vision into technical implementation using Lovable prototypes, delivering full stack solutions.
- Created a QR code to trigger data entries between physical and digital experiences for social experiments, enabling real-time participation and improving data collection efficiency.
- Built automated data pipelines and dashboards converting raw activity into insights, reducing manual reporting effort by 90%.
- Consulted with team and users, which led to decreased onboarding steps and an increase in user retention in live trials.
- Collaborated with founders to align analytics and engagement metrics for research and product direction.  
Technologies Used: TypeScript, React, Plausible Analytics, Tailwind, Vite, Cloudflare

### **Journeyman Inside Wireman — IBEW 153**

*Aug 2023 – 2025*

- Led diagnostics and electrical installations across commercial builds, coordinating with engineers and safety inspectors to exceed schedule and safety goals.
- Applied systematic problem-solving and quality control methods transferable to backend development workflows.

### **Electrician — Wolverine Electrical Contracting**

*Dec 2021 – Jan 2023*

- Managed installations, testing, and troubleshooting in high-demand environments, reinforcing reliability and precision under pressure.
- Supported project planning and data-driven reporting for equipment installations.

### **Electrician Apprentice — Gaylor Electric, Inc.**

*Sep 2017 – Jan 2022*

- Completed the required amount of structured training in electrical theory, automation systems, and safety compliance.