

Joseph Drolshagen

Software Engineer

✉ jdrols@gmail.com 📍 Charleston, SC 🔗 jdrols.github.io

SUMMARY

Software engineer experienced in full-stack development and cloud infrastructure, with a background in systems administration. Co-created [Amber](#) 🔗, an open-source durable execution runtime for long-running AI agents. Strong in Ruby, Python, and TypeScript; production experience in React, Postgres, AWS, Terraform, and Docker.

PROFESSIONAL EXPERIENCE

Amber, Co-creator & Software Engineer

2026 – Present
Remote

Amber gives long-running AI agents durable, resumable execution as an open-source, self-hosted runtime. Its Python SDK checkpoints each step to Postgres through decorators, so a failed run picks up where it left off instead of starting over. (Python, DBOS, Postgres, AWS, Terraform, Docker, React)

- Implemented queue-first workflow execution backed entirely by **Postgres**, with API services enqueueing agent runs and dedicated workers executing them
- Developed a **React** dashboard for debugging workflows: inspect step history and agent traces, review errors, fork failed runs to replay from any completed step
- Built a **Python CLI** for the full deployment lifecycle, from provisioning, deploying, and tearing down AWS environments to inspecting and debugging workflows
- Architected **AWS** infrastructure with **Terraform**: CloudFront path routing, three independently scaled ECS Fargate services, RDS Postgres behind RDS Proxy, Cognito, ECR, S3
- Containerized all services with **Docker** and automated builds and deploys through a CI/CD pipeline
- Co-authored Amber's [technical case study](#) 🔗 and built the Python SVG tooling behind the case study's architecture diagrams
- Collaborated with 3 other engineers on a fully remote team via daily standups, feature-branch workflow, and code/design reviews

Self-Employed, Software Engineer

2022 – 2025
Remote

- **RequestBin** – Built a webhook capture and debugging tool with a React frontend, Express/Node.js API, and Postgres + MongoDB backend
- **wolfe-rag** – Built a RAG application for extracting factual signals from unreliable-narrator texts using pgvector embeddings and semantic retrieval (Python, Postgres)

Omnifex, Co-founder & Product Lead

2018 – 2022
Remote

- Co-founded Omnifex and launched a multi-vendor e-commerce aggregation platform for custom build configurations, managing architecture and delivery through an external software consultancy
- Scoped and oversaw implementation of a **Ruby on Rails** API backend (Postgres, Sidekiq workers) and **Ember.js** SPA frontend, plus a crawler pipeline ingesting product data from 4+ supplier feeds
- Synthesized the product feature roadmap from user feedback and business needs, prioritizing features with decision matrices to keep scope within delivery capacity

Systems Administrator

2016 – 2022
Michigan

- **KLA** (2021 – 2022, Ann Arbor): Built infrastructure for a new headquarters (datacenter, engineering labs, cleanroom, MDFs) and provided technical consulting to engineering and research staff
- **Best Buy Health** (2020 – 2021, Novi) · **Stoneridge** (2016 – 2020, Novi): Administered enterprise systems, supported engineering teams, and maintained production infrastructure

SKILLS

AI Engineering

- RAG
- pgvector
- OpenAI SDK
- Context engineering
- Structured outputs

Backend

- Ruby/Rails
- Express/Node.js
- Python
- Postgres
- MongoDB

Frontend

- JavaScript
- TypeScript
- React
- Vite/Vitest
- UX/UI

Tooling/Infra

- AWS
- Terraform
- Docker
- Claude Code
- Hermes Agent

EDUCATION

Software Engineering, Launch School

2022 – 2025

Computer Science (coursework), Arizona State University

2010 – 2013