

David Ostrander

Principal Software Engineer | Full-Stack Platforms, Data & AI-Enabled Products

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PROFESSIONAL PROFILE

Hands-on Principal Software Engineer who owns high-availability cloud platforms, enterprise data infrastructure, and multi-system integrations at scale—including a **\$27M BigCommerce** commerce platform and an AWS data warehouse (Glue, Athena, S3, RDS). Builds full-stack product features end-to-end, from **React** and **Vue.js** front ends to Node.js/Python services and the underlying data layer. Internal solutions architect for Salesforce, NetSuite, Piano, Cvent, and related pipelines. Applies LLMs and orchestration tools to accelerate delivery and add AI capabilities to products and pipelines, with the same reliability, cost, and compliance discipline used across PCI, MilSec-, and privacy-regulated systems. Mentors engineers and sets standards across cross-functional teams.

In short, I solve hard business problems with technology, and I ship on time.

TECHNICAL CAPABILITIES

ARCHITECTURE & INTEGRATIONS: Solutions Architecture, RESTful & GraphQL APIs, Enterprise: Salesforce, NetSuite, BigCommerce, Piano, Events/Membership: Cvent, CAMP, Stova, Marketing & Analytics: GA4, Marketo, LinkedIn, Distributed Systems, Event Streaming: Kafka, RabbitMQ & SQS/SNS

FULL-STACK DEVELOPMENT: React, Vue.js, TypeScript, Node.js & Express, Angular, Next.js & Nuxt, State Mgmt: Redux, Vuex & Pinia, Tailwind & SCSS, Testing: Jest, Cypress & Playwright, NoSQL: MongoDB & DynamoDB, Docker & Kubernetes

CLOUD & INFRASTRUCTURE: AWS (Lambda, RDS, S3, EC2, Beanstalk), AWS Security & Identity (IAM, Secrets Mgr, STS, SSO, Cognito), AWS Management & IaC (CloudFormation, Systems Mgr, AppFlow), Continuous Integration (CI/CD), AWS CodeDeploy & Cloudfront, CircleCI & Jenkins, Nginx & Reverse Proxies, Systems Admin (Linux/Win), Google Cloud (GCP), Terraform & Ansible

LANGUAGES & DATA: Python, Data Warehousing, ETL Pipelines, AWS Glue & Athena, Expert SQL Programming, PostgreSQL, MySQL, Redis, MS SQL Server, Oracle DB, Ruby & PHP, R

COMPLIANCE & LEADERSHIP: PCI & OWASP Compliance, MilSec Compliance, Technical Project Leadership, Software Lifecycle Management, Mentoring & Hiring, Agile Methodologies

AI-ENABLED DELIVERY: LLMs & Generative AI, Prompt Engineering, LangChain & LlamaIndex, MCP (Model Context Protocol), OpenAI & Anthropic Claude APIs, Spec-Driven Development

ALSO WORKED WITH:: Datadog, New Relic, ELK / Elasticsearch, Hugging Face

PROFESSIONAL EXPERIENCE

Lead Software Engineer

IAPP (International Association of Privacy Professionals)

Remote • 2025 – Present

- Direct engineering and operations for a **\$27 Million BigCommerce eCommerce platform** and its integrated, high-throughput fulfillment engine, including **React**-based ecommerce workflows for fulfillment and order tracking.
- Architected and deployed an **AWS data warehouse (S3, Glue, Athena, RDS)** as **Lead Data Engineer**, interviewing stakeholders across business units to shape KPI-driven Silver-layer models that unify ingestion from **9 enterprise SaaS systems** into one governed analytics platform.
- Designed and shipped multi-system integrations as **internal Solutions Architect**, connecting **Salesforce, NetSuite, Piano, and Cvent** with data syncs across **5 additional platforms (CAMP, Stova, GA4, Marketo, and LinkedIn)**—deployed on **Next.js** and **Docker/Fargate**.
- Accelerated **AWS Glue** ETL authoring using Cursor/Claude with schema-bound prompts and Parquet partition rules, then debugged hallucinated Glue APIs via **CloudWatch** and refactored to native PySpark writers for production-scale reliability.
- Built AI-enabled workflow prototypes over governed enterprise data using **LangChain / LlamaIndex** and **MCP** tooling, enforcing PII boundaries to keep every prototype compliant in a privacy-regulated domain.
- Piloted **Spec-Driven Development** on the team, writing spec-first documentation for AI-assisted features and driving org-wide adoption of the practice.

Project Lead & Principal Engineer – APIs and Ops

Contractor

Remote • 2018 – 2025

- Built a **React**-based legal document portal (**RS21**) for the Office of State Engineering, giving staff a searchable digital records system.
- Built a secure **React**-based operator portal for a **Department of Defense** unmanned aerial drone program, enabling authenticated remote drone initialization under MilSec constraints.
- Built the **Aetherways** content authoring and publishing platform on **Vue**, giving creators a self-service RPG content pipeline.

Senior Engineer – APIs and Ops

Member Suite

Remote • 2021 – 2022

- Authored and executed a plan to migrate DevOps from a homegrown Jenkins implementation to **CircleCI** and **Amazon CodeDeploy**, making deployments testable and **200% faster**.
- Analyzed operations and created several measurable KPIs—including build/deployment success, site speed, and client/server error rates—visualized through a **React**-based internal operations dashboard.
- Implemented monitoring, alerting, and code delivery mechanisms which stabilized service reliability and reduced downtime by an order of magnitude.
- Created and rolled out a post-incident review process org-wide, standardizing root-cause documentation after every outage.

Lead Engineer and Solutions Architect

Alumni Ventures Group

Manchester, NH • 2020 – 2021

- Transitioned engineering workflows from an overseas PHP firm to AVG, including release processes and achieving **99.99999% uptime**.
- Built up the local engineering team, authoring the team handbook, SOP's, the onboarding process, and coding/security standards adopted org-wide.
- Redesigned core database architecture to **3NF** with warehousing patterns for historical transaction auditing.
- Architected an **Oracle NetSuite integration** joining customer and financial backends via AWS API Gateway, with a **React**-based back-office UI for reconciliation and reporting.

Principal Engineer and Solutions Architect

Imarc

Amesbury, MA • 2018 – 2020

- Led transition from an overseas PHP firm; refactored Atlanticbb.com ops to **100% uptime** with DevOps and enterprise 3-tier architecture.
- Led bi-weekly release cycles across product and creative teams, driving stakeholder consensus and technical documentation that kept cross-team delivery on schedule.
- Designed and shipped three internal React applications (ticketing, LMS, business intelligence) plus API interfaces connecting process monitoring and supply-chain vendors.

Salesforce Commerce Cloud Developer

PixelMedia

Portsmouth, NH • 2017 – 2018

- Created and maintained eCommerce sites earning **\$25 Million+** in annual revenue.
- Coordinated clients and vendors through technical specs, integration briefs, and deployment procedures, validating architectural choices before each launch.

Director of Software Development and Information Technology

Franchise Growth Network

Portsmouth, NH • 2013 – 2017

- Refactored a 15-year-old codebase into a competitive, **PCI compliant** product.
- Deployed AWS architecture (EC2, Lambda, Elastic Beanstalk, S3, RDS, IAM); cut hosting fees **50%** and disaster recovery times **90%**.

EDUCATION

Associate in Information Technology

2004

Southern NH University, Manchester, NH