

# John Connolly *Principal Engineer | LLM Platforms & Distributed Systems*

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## Experience

Data Society Group

REMOTE/HOBOKEN, NJ

**Lead Product Engineer** (*Principal-level IC; tech lead, AI/platform*)

Jan 2025 – Present

- Built an **LLM teaching assistant** on Bedrock + Claude (Lambda, RDS, Next.js / React 19); answers pulled from course content via Bedrock Knowledge Bases.
- Stood up the **Post-Course Reporting** app (Next.js App Router, Tailwind 4, Prisma, ECS Fargate behind ALB OIDC + Google Workspace SSO), fed by a Glue/Python job that mirrors a partner's Redshift bi schema into RDS Postgres.
- Wrote **dsg-tools**, an internal MCP server + Claude skills the engineering team uses daily to drive Jira, Bitbucket, and AWS Cost Explorer.
- Shipped the **AI Course Recommender** (Bedrock + vector search, Cognito + Google IdP, ECS + ALB) that picks curricula from learner embeddings.
- Own the Terraform setup (ECS Fargate module, Route 53, ECR, RDS, cross-account IAM) and Bitbucket Pipelines (build → ECR → terraform apply → ECS/Lambda) for the AI/platform side.

Independent Engineering Consultant, Remote

Feb 2024 – Jan 2025

Flow Commerce (acquired by Global-E [NASDAQ: GLBE] Dec. 2021)

REMOTE/HOBOKEN, NJ

**Principal Software Engineer**

Jul 2021 – Feb 2024

- Tech lead for 3–5 engineers building the international checkout, payments, tax, and fulfillment engine behind **Shopify Managed Markets** (originally Markets Pro). Scala, Akka, Play, AWS, Kubernetes, Postgres.
- Took it from POC to \$50M+ GMV across 3,500+ merchants and **136 international markets**; hit GA on Shopify Plus by Feb 2024.
- After **Global-E** acquired the company (Dec 2021), merged Flow's stack into the joint Managed Markets product: catalog, currency, tax, order routing.
- Tuned the engine for Shopify Plus BFCM traffic: multi-currency pricing, multi-region inventory, merchant-of-record tax.

Netsmart

REMOTE/GREAT RIVER, NY

**Team Lead & Senior Architect**

Feb 2020 – Jul 2021

- Led 3–5 engineers migrating a legacy MUMPS/Java stack to Angular, Spring Boot, Postgres, and Kubernetes.

Perfumania Holdings Inc.

REMOTE/BELLPORT, NY

**Senior Applications Engineer**

Jan 2018 – Feb 2020

- Migrated the legacy eCommerce stack to Shopify (dotcom and Amazon Marketplace).

Earlier Roles

Senior Software Engineer, OpenXchange (2016–2018) • Senior Software Engineer, CooCoo (2015–2016) • Software Engineer, TheLadders (2012–2015) • Lead Software Engineer (team of 7–9), BugLabs (2008–2012)

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## Selected Projects

Virtual Teaching Assistant

DATA SOCIETY, 2025

Bedrock + Claude teaching assistant for cohort-based courses. Retrieval against course materials via Knowledge Bases; tool-use for code lookups. Lambda + RDS, Next.js frontend.

dsg-tools (*MCP server + Claude skills*)

DATA SOCIETY, 2025

Internal MCP server + Claude-skill suite for Jira (transitions, comments, ADF), Bitbucket (PRs, pipeline logs, deployment vars), and AWS (Cost Explorer, SSM, ephemeral webhook tunnels).

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## Education

Stony Brook University

STONY BROOK, NEW YORK

**Bachelor of Science in Computer Science**

Worked on game-theoretic research with Dr. Patrick Grim; co-authored papers in MIT's *Artificial Life* and *Public Affairs Quarterly*.

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## **Skills**

**AI/LLM & Backend:** AWS Bedrock, Anthropic Claude API, Bedrock Knowledge Bases, vector search (pgvector, OpenSearch k-NN); AWS (ECS Fargate, Lambda, Glue, RDS Postgres, ALB, Cognito), Next.js/React, Akka, Play, Spring Boot, Prisma, Kubernetes, Docker.

**Languages & Tools:** Scala, Java, Python, TypeScript/JavaScript, bash; Terraform, Bitbucket Pipelines, Git.