

Mark Murphy

Senior Software Engineer

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EXPERIENCE

Senior Software Engineer · Umbrella Digital

Mar 2022 – Present

Senior engineer on Nomad, an ad-ops platform for media-buying agencies. I work on the Node/TypeScript API, AWS infra, the Databricks pipelines, and CI/CD.

- Built the notifications system. Central builder feeding queue workers; sends to Jira (ADF format), Slack, and email. Wrote the integration tests and the migration.
- Standardized the dashboard API: typed errors, validation, trace IDs, pagination. Applied it back to deals, campaigns, and customer endpoints.
- Maintain the pacing and billing pipeline. Materialized views for SA360 and Spotify, business-unit-aware QuickBooks invoicing, margin-schedule line items.
- Wrote the Databricks pipeline framework from scratch. ETL and JobStep classes, dynamic resource generation, environment-aware deploys, runtime dep auto-sync.
- Modernized infra across eight repos. Terraform AWS provider upgrades, Lambda 18 → 22 migration, dropped Serverless Framework, S3 lifecycle rules, ongoing vuln triage.
- Ported the API CI/CD from GitHub Actions to GitLab CI with MR-driven dev deploys. Migrated the monorepo to Yarn v4.
- Built a browser-testing tool in Python/Playwright. GUI selector picker, captures Floodlight/network/data-layer activity, ships as PyInstaller bundles via GitHub Actions.
- Moved core data logic out of MySQL triggers into the API layer. Easier to operate, testable in CI.

SELECTED PROJECTS

Munny Personal finance dashboard with Plaid sync. Answers "can I afford this?"

React · TypeScript · Node.js · Express · MongoDB

RealmKeeper D&D campaign platform. DM encounter state and player sheets in sync over WebSockets.

React · TypeScript · Node.js · Express · MongoDB

Skate Learning CNN trick classifier. Upload a clip, get the trick named and timestamped feedback.

React · TypeScript · Python · PyTorch · MongoDB

Sudokukkake Mobile-first Sudoku with persistence and undo. *dev.sudokukkake.com*

Svelte · TypeScript · Node.js · Express · MongoDB

ShelfWise Book tracking and cataloging. Point your phone at a shelf, get your library indexed.

React · TypeScript · Node.js · Express · MongoDB

SKILLS

Languages TypeScript · JavaScript · Python · C · Java · PHP

Backend Node.js · Express · Lerna / Yarn workspaces · Webpack

Frontend React · Next.js · Svelte

Data MongoDB · MySQL · PostgreSQL · Databricks / PySpark

Cloud AWS (ECS Fargate, Lambda, SQS, S3, Step Functions, CloudWatch) · Terraform

Other GitHub Actions · GitLab CI · Docker · Playwright · Linux · Bash

EDUCATION

B.S. Computer Science · Western Governors University

2021