
Michael Montero

Senior Lead Software Engineer

React, React Native, Node.js, Python, FastAPI, AWS

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SKILLS

- **Frontend:** JS/TS • React • Next.js • React Native • Redux/Context • React Query/SWR • Tailwind • MUI • D3/Chart.js/Three.js • A11y (WCAG) • Perf (CWV, SSR/SSG) • Vite/Webpack • ESLint/Prettier
- **Backend:** Node • Python • Go • PHP • Express/NestJS/FastAPI/Django/Laravel • REST/GraphQL/gRPC • WebSockets/SSE • OpenAPI/Swagger • Zod/Yup • Auth (OAuth2, OIDC, JWT, Azure AD B2C)
- **Data & Pipelines:** Postgres • MySQL • MongoDB • Snowflake • BigQuery • Databricks • SQLAlchemy/TypeORM/Mongoose • Redis • RabbitMQ • Celery • Airflow • Spark • Kafka (basic)
- **Cloud & DevOps:** AWS (Lambda, API GW, CloudFront, CloudWatch, ECS, S3, IAM) • Vercel • Heroku • Docker • Kubernetes • Terraform • CI/CD (GitHub Actions, Jenkins) • Observability (Prometheus, Grafana, OpenTelemetry, Sentry)
- **Security & Quality:** OWASP Top 10 • TLS • Secrets mgmt • Rate limiting • HIPAA/KYC • GDPR/CCPA • Testing (Jest, PyTest, Cypress, Playwright, RTL) • TDD/BDD (basic) • Contract tests • Feature flags • A/B tests
- **AI & Collaboration:** OpenAI/Anthropic APIs • GitHub Copilot • Cursor AI • WindSurf • Agile/Scrum • Roadmaps • RFCs/ADRs • Code reviews • Cross-functional collab • Mentorship

EXPERIENCE

Walmart, Remote - Senior Lead Software Engineer

Oct 2022 - Oct 2025

- Built checkout UI for item restrictions and embedded loose-item barcodes using **React/Next.js/TypeScript, Redux/RTK Query, Storybook**, and Design System tokens; boosted **CWV** via code-splitting, memoization, virtualization, and preloading; ensured **A11y (WCAG/ARIA)** and quality with **Jest/RTL, Cypress**, and visual regression.
- Integrated **Buy Now, Pay Later** for CA markets via secure **API orchestration** and feature flags, contributing to materially larger basket sizes across high-traffic stores.
- Developed a **Single Sign-On** omni initiative (**OpenID Connect**) for unified receipts, coupons, and Wallet, shortening checkout time at **POS** by nearly one-third and handling 10+ million transactions weekly.
- Implemented a **Microservices-based** incident management system in **Go** with **Postgres** and **Redis**, exposing **REST/gRPC** via **OpenAPI**, increasing incident throughput from 70 to 95 tickets/day.

- Delivered a **Python/FastAPI BFF** with **OAuth2/OIDC/JWT** and response aggregation, reducing frontend network calls from 6-8 to 2-3 per view and improving median page load by 300–500 ms.
- Extended omni-tenant checkout services for ASDA-UK, SEIYU-Japan, and Walmart-China using **DDD**, **REST**, and **gRPC** on **AWS ECS** with **Redis** caching, sustaining tens of thousands of requests per second.
- Migrated targeted domains from relational to document stores (**Postgres** to **MongoDB**), applying compression and schema redesign to shrink average record size from 90 KB to 2 KB and lower read times by several milliseconds per call.
- Designed data pipelines with **SQLAlchemy/Mongoose**, **Redis**, and **Airflow/Celery** for async processing and backfills, increasing throughput by thousands of jobs per hour while lowering compute spend.
- Led automated test suites in **Python (PyTest)** and **Go** with contract tests and **TDD** on critical paths, raising coverage into the mid-80s and preventing dozens of regressions per quarter.
- Created a Docker-based test harness (**Go/Python**) integrated with **SonarQube** and **GitHub Actions/Jenkins**, automating static/unit/integration checks and trimming PR cycle time by 1–2 days.
- Enforced **OWASP Top 10**, **TLS**, secrets management, and **GDPR/CCPA** controls via **CI** policies and dependency scanning, driving critical security findings to near zero in quarterly audits.
- Accelerated delivery with **GitHub Copilot/Cursor AI** and **OpenAPI**-first scaffolds, maintaining high standards with **ESLint/Prettier** and pre-commit hooks and shaving hours off routine tasks.
- Led engineering roundtables and mentored a 4–5 person team, uplifting code quality via reviews, design sessions, and shared playbooks used by multiple teams.

Stripe, New York, NY - *Senior Software Engineer*

Jul 2017 - Sep 2022

- Delivered real-time billing analytics with <15 min ingestion latency and <300ms query responses, boosting finance reporting efficiency by 40% using **Django REST**, **PostgreSQL**, and **Redis**; visualized insights in **React + TypeScript** with **Tailwind** and **D3**.
- Designed and exposed scalable APIs (**REST + GraphQL**) integrated with Stripe Radar and Stripe Sigma, enabling fraud detection and advanced customer analytics for 10+ enterprise clients using **OpenAPI/Swagger**, **OAuth2**, **JWT**, and **RBAC**.
- Shipped interactive dashboards for live subscription metrics and reconciliation with **React**, **TypeScript**, **React Query**, **Tailwind**, and **Chart.js**; improved Core Web Vitals and accessibility (**WCAG**) through **SSR/SSG** and **A11y** audits.
- Automated **Zero-Downtime** rollouts and **Blue-Green** deploys with **Docker**, **Kubernetes (EKS)**, **Helm**, **Terraform**, and **CI/CD (GitHub Actions)**; tightened observability with **CloudWatch**, **ELK**, and **Datadog** to reduce **MTTR** by 60%.
- Optimized data storage and querying to reduce query costs by 20% and ensure high availability for multi-tenant workloads using **PostgreSQL**, **MongoDB**, **Snowflake**, **AWS S3**, and partitioning/indexing strategies.

- Applied anomaly detection and fraud risk scoring on streaming data, cutting false positives by 35% and improving chargeback prevention using **Scikit-learn**, **PyTorch**, and feature stores backed by **PostgreSQL/Snowflake**.
- Deployed serverless inference and event handlers using **AWS Lambda**, **API Gateway**, and **Amazon RDS**, achieving low-latency processing and cost efficiency; cached inference results with **Redis** and **S3** presigned URLs for artifacts.
- Instrumented full-stack observability with **CloudWatch**, **AWS X-Ray**, **Sentry**, and **OpenTelemetry**, establishing **SLOs/SLIs** and proactive alerting for rapid incident response.
- Drove **Agile/Scrum** practices using **Jira**, authored **RFCs/ADRs**, and led peer code reviews and design docs to align product managers, ML researchers, and SREs.

Coastal Construction Company, Miami, FL - *Software Engineer*

Mar 2013 - Jun 2017

- Built responsive UI components with **React** and **JavaScript/TypeScript**, styled with **Sass/Bootstrap**, improving page performance and reducing layout shifts on key flows.
- Developed **REST APIs** in **Node/Express** and **Python/Django/FastAPI**, documented with **OpenAPI** using **Postman**, and added auth middleware (**OAuth2/JWT**), cutting 401/403 noise by 25%.
- Wrote **SQL** queries/migrations (**MySQL** with **SQLAlchemy/TypeORM**; **MongoDB** with **Mongoose**), adding indexes that reduced p95 latency by 25–35%.
- Wrote unit and integration tests with **Jest** and React Testing Library; added smoke tests via **Cypress** for critical journeys to stabilize releases.
- Containerized services with **Docker** and deployed to **AWS (EC2/ECS)**, **Heroku**, and **on-prem VMs**; wired **CI/CD** with **Jenkins/GitHub Actions** for automated tests and gated releases.

EDUCATION

University of Miami - *Bachelor's degree of Communication Technology*

2016 - 2018

Technical Career Institutes - *Networking / Information Technology*

2015 - 2016