

FRANCK BIYOGUE BINDOUTOUME

Ames, IA 50010 | (515) 708-2688 | franckbbiy@gmail.com

Education

Bachelor of Science: Software Engineering
GPA: 3.07

Iowa State University - Ames, IA
Graduated: 05/2025

Professional Summary

Software Engineer with 2 years' experience building and operating APIs and microservices (micro-services) on AWS using Java, Next.js/TypeScript, Terraform, Jenkins, and PostgreSQL. I work end-to-end in Agile teams—definition, design, development, testing, code reviews, source control, CI/CD build processes, and production troubleshooting—to deliver high-quality, customer-focused features. Partner closely with stakeholders to scope enhancements and own timelines/deliverables. Familiar with Kotlin and technical SEO practices for Next.js apps (meta tags, sitemaps, performance).

Experience

Software Engineer

05/2023 to Current

John Deere - Financial – Johnston, IA - Ames, Iowa

- Built and operated **APIs and microservices (micro-services)** on **AWS** (API Gateway, **Lambda**, **RDS/PostgreSQL**, **S3**, **CloudWatch**) using **TypeScript/Node.js**; collaborated with teams running **Java/Kotlin** services and contributed minor fixes to integrate contracts.
- Shipped **Next.js (React/TypeScript, MUI)** features for internal Credit Underwriting & SAC portals; integrated REST endpoints via **Prisma/PostgreSQL** and implemented guard-rail UX (admin modal blocking navigation until assignment).
- Wrote **Terraform** modules for infra (VPC, IAM roles/policies, S3 buckets, CloudWatch Logs/alarms, Lambda, API Gateway); managed secrets with **AWS SSM Parameter Store**; used **remote state (S3 + DynamoDB lock)**.
- Set up **CI/CD** with **Jenkins** (lint, unit/integration tests, build, **Terraform validate/plan/apply**, deploy to dev/stage/prod); enforced **code reviews**, coding standards, and PR checks in Git/GitHub.
- Implemented **access logging** and audit trails for user terminations using **CloudWatch Logs** and S3 lifecycle policies
- Improved API reliability with better error handling, timeouts, and retries; optimized **Prisma** queries and added pagination to reduce response times and database load.
- Partnered with product, QA, and designers to refine requirements and scope enhancements; owned sprint deliverables and timelines in an **Agile** environment (standups, planning, retros).
- Participated in **architecture and code reviews**; authored lightweight design notes and runbooks; assisted on production **troubleshooting** alongside the on-call team and captured post-incident follow-ups.
- Integrated **Okta (OIDC)** for secure SSO; applied **least-privilege IAM** and tagging standards across Terraform resources.

Software Engineer – GridAI: Cloud-Based ML Interfa

08/2024 to 05/2025

Iowa State University – Ames, IA

- Built a **Next.js (React/TypeScript)** web interface for real-time grid telemetry and ML model outputs; implemented reusable UI components and data visualizations.
- Collaborated with stakeholders (faculty advisor/industry partner) to define requirements, scope features, and plan iterations in an **Agile** workflow (standups, sprint planning, retros).
- Participated in **architecture and code reviews**; documented design decisions and created runbooks; supported troubleshooting during demos and handled defects to restore service.
- Followed web **SEO/performance** best practices for **Next.js** (metadata, sitemap, accessibility, lazy loading), improving discoverability and page performance.
- Took ownership of timelines and deliverables; communicated status/risks early and aligned releases with milestone reviews.

GymBros Mobile Java App Development

08/2023 to 12/2023

Iowa State University – Ames, IA

- Built a production-quality **Android app in Java** with modular architecture (MVVM), **Retrofit** APIs, and **Room** offline caching; added **Kotlin** interop for new features.
- Designed, consumed, and tested **REST APIs** for workout plans, tracking, and profiles; implemented auth (JWT/OAuth) and robust error handling/retries.
- Established SDLC best practices: **coding standards**, **code reviews** (Git/GitHub PRs), **source control** (Git), and clear branching/release strategy.
- Implemented automated **build processes** with **Gradle** and **CI/CD** (GitHub Actions): unit/instrumentation tests, lint, and signed builds for internal/beta tracks.
- Wrote **tests** (JUnit, Mockito, Espresso) and added static analysis (Android Lint) to improve code quality and prevent regressions.

- Monitored and troubleshot production issues using logs and **Crashlytics**; documented runbooks and contributed to **operational excellence**.

Skills and Activities

Java • Kotlin (familiar) • TypeScript/JavaScript • Python • SQL/React • **Next.js** (App Router) • MUI • Responsive/accessible UI. REST APIs • WebSockets • **Microservices (micro-services)** • Node.js/Express • FastAPI (familiar). **AWS** (Lambda, API Gateway, S3/CloudFront, RDS/PostgreSQL, CloudWatch, IAM) • **Terraform** • Docker. **CI/CD & Source Control: Jenkins** • GitHub Actions • Git • Build processes • Release versioning. **Testing & Quality:** Jest • Playwright • JUnit • pytest • Integration/E2E tests • Code reviews • Coding standards. **Data & Caching:** PostgreSQL • Prisma ORM • Redis (cache) • Pagination & query optimization. **Security & Identity:** Okta/OIDC • Least-privilege **IAM** • Secrets via SSM Parameter Store. **Operations:** CloudWatch logs/metrics/alarms • Runbooks • Production troubleshooting • On-call shadowing. **SEO & Performance: Next.js SEO** (metadata, sitemaps, robots.txt) • Core Web Vitals • Lighthouse. **Process:** Agile/Scrum • Stakeholder communication • Ownership of timelines & deliverables