Youssef Benkdane

bnkd.me

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Location: Paris, France

Senior Backend & Cloud Systems Engineer specialized in building scalable cloud-native architectures using Go, Rust, and Python. Experienced in designing event-driven systems, serverless platforms, and scalable infrastructure on GCP and AWS.

EDUCATION

- **Jean-Pierre Vernant High School** — Paris, France
  High School Diploma - Mathematics & Computer Science — *2022*
    - **Achievements**: Winner of Hackathon 2022; Led organization of student hackathons and mentoring initiatives
    - **Focus**: Specialized in mathematical, numerics and computer science

EXPERIENCE

- **TF1** — Paris, France
  Back-End Software Engineer — *July 2023 - Present*
    - **Adventory Platform**: Led the design and development of Adventory, TF1's unified ad management and billing platform, generating over $200M/year in revenue across segmented TV and streaming.
    - **Backend Systems**: Engineered WizAds ad proxy services in Go, enhancing real-time ad delivery to apps, IPTV, and Connected TVs, with partner-specific enrichment and optimization.
    - **Infrastructure & Deployment**: Managed AWS infrastructure and ArgoCD-based CI/CD pipelines using Terraform, ensuring scalable and reliable deployments.
    - **Monitoring & Observability**: Implemented Datadog-based observability with business-critical metrics, improving operational monitoring and decision-making.
    - **Testing Infrastructure**: Contributed to Wizfy, an end-to-end testing framework leveraging MITM proxy setups for precise ad-system validation.
    - **Audience Targeting Systems**: Built CEDEX and audience data importers, enhancing targeted advertising capabilities across TF1's platforms.
- **Polyfact** — Paris, France
  Freelance Software Engineer — *November 2024 - March 2025*
    - **Platform Architecture**: Led the technical direction and re-architecture of the entire Polyfact platform, migrating from monolithic infrastructure to an event-driven cloud-native system using GCP Cloud Run, Pub/Sub, and Workflows.
    - **Media Processing Pipelines**: Designed and implemented asynchronous pipelines for downloading, processing, and analyzing VOD and live streaming content, significantly improving scalability and reliability.
    - **Cost Optimization**: Reduced infrastructure costs by over 50% by decoupling high-load processes, optimizing resource allocation, and implementing on-demand media processing services.
    - **Real-Time Alerting System**: Built standalone alerting services to trigger real-time notifications based on live transcription analysis, increasing platform responsiveness.
    - **Infrastructure Automation**: Introduced Terraform-managed infrastructure, enabling rapid and reliable deployments with clear dev/prod separation and streamlined release workflows.
- **ThemeCloud** — Remote
  Back-End Software Engineer — *November 2021 - July 2022*
    - **Infrastructure Redesign**: Re-architected WordPress hosting infrastructure from a monolithic platform to a microservices-based system using GCP, Kubernetes, and Go.
    - **Scale-to-Zero Optimization**: Implemented KEDA-based scale-to-zero system for WordPress pods, dynamically shutting down idle instances and reducing hosting costs by approximately 50%.
    - **Backend API Development**: Developed custom REST APIs in Go for managing Kubernetes resource orchestration and integrating WordPress user actions.
    - **WordPress Plugin**: Built a WordPress plugin enabling users to restart pods and manage backend operations directly from their dashboards, improving UX and reducing support load.
    - **ProxySQL Management**: Created Kubernetes controllers to manage ProxySQL instances and associated GCP resources, enhancing database scaling and infrastructure stability.
- **GitHub** — Remote
  Freelance Software Engineer — *August 2019 - September 2021*
    - **Open Source**: Developed and maintained popular repositories in Rust, Go, and JavaScript
    - **API Development**: Built APIs using SOLID architecture with PostgreSQL and JWT

- **CoinArc**   Remote
  Software Engineer / DevOps   *May 2020 - July 2020*
    - **Backend Development**: Designed and implemented cryptocurrency trading platform backend using NodeJS and TypeScript
    - **Architecture**: Built robust API using SOLID principles ensuring scalability and maintainability
    - **Integration**: Implemented secure payment gateway integrations with SafeCharge and CoinBase Pro
    - **Security**: Developed JWT-based authentication system with role-based access control
    - **Infrastructure**: Managed AWS infrastructure including S3 for storage and deployment automation
- **Lick**   Remote
  Software Engineer / DevOps   *April 2020 - June 2020*
    - **Full Stack**: Developed forum platform using Go for backend services and Node.js for frontend components
    - **Real-time Features**: Implemented WebSocket-based notification system for instant user updates
    - **API Design**: Created RESTful API following SOLID principles with comprehensive documentation
    - **Database**: Optimized PostgreSQL database queries and implemented efficient data models
    - **DevOps**: Set up continuous integration/deployment pipeline and monitoring systems

Technical Skills

- **Languages**: Go, Rust, Python, TypeScript, C
- **Cloud & Infrastructure**: Google Cloud Platform (GCP), AWS, Terraform, Docker, Kubernetes, ArgoCD
- **Databases**: PostgreSQL, Redis
- **Architecture Patterns**: Microservices, Event-Driven Systems, Serverless, REST APIs, Infrastructure as Code (IaC)
- **Tools**: Git, FFmpeg, Pub/Sub Messaging, Cloud Workflows

Languages

- **Fluent**: French (Native), English (Bilingual)
- **Basic**: Arabic, Spanish, Chinese