Wilfred Chetat

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Summary

Software Engineer with more than 6 years of experience designing and scaling distributed backend systems, payment infrastructures, and AI-driven analytics platforms. Expertise in Python, FastAPI, PostgreSQL, Kafka, and AWS, with experience as a founding engineer, building a neo-bank's core payments backend (card issuing, mobile money, KYC) from architecture through production.

Skills

Programming Languages: Python (primary), TypeScript, Rust, Bash

Backend & Data Systems: FastAPI, Flask, Apache Kafka, Airflow, Redis, Apache Superset

Cloud & Infrastructure: AWS, Docker, Kubernetes, Linux, Prometheus, Grafana

Databases: PostgreSQL, DynamoDB, SQL, Qdrant

Domains: Payments, Card Issuing, Wallets, KYC, Real-time Analytics

Experience

Senior Backend Engineer September 2024 – Ongoing

UXE Security Solutions *UAE, Dubai (Contract – On-Site)*

- Build backend infrastructure for a real-time video analytics platform to process high-volume detection data from hundreds of concurrent camera streams.
- Design and develop a Python ML inference server (PyTorch/ONNX, FastAPI, gRPC) for scalable model serving, low-latency request handling, and integration with video analytics pipelines.
- Reduced data transfer overhead by approximately 70% by implementing Protocol Buffers across distributed services, improving throughput for data-intensive workloads.
- Built a vector similarity search system with Qdrant, querying tens of millions of records in under 200 milliseconds, enabling low-latency identity matching and retrieval at scale.
- Collaborated with product, AI, and design teams to translate analytics requirements into backend architecture, technical specifications, production services, and internal API documentation.
- **Tech stack: Python, Redis, Websockets, FastAPI, gRPC, Kafka, PostgreSQL, Qdrant, Protocol Buffers, PyTorch, ONNX, Docker, Kubernetes, Prometheus, Grafana**

Software Engineer August 2023 – August 2024

Alphathesis *Dover, Delaware (Contract – Remote)*

- Designed and built Python RESTful APIs on AWS ECS and RDS using a microservices architecture for an insurance platform, applying API development best practices to support reliable data handling and service integration.
- Established API documentation standards and workflows, reducing integration time with frontend teams and improving developer experience.
- Implemented automated testing and CI/CD pipelines, achieving high code coverage and enabling frequent, low-risk production deployments in a fully remote environment.
- **Tech stack: Python, REST APIs, FastAPI, AWS (ECS, RDS, S3, Lambda), GitHub Actions**

Senior Backend Engineer (Founding Backend Engineer) November 2021 – June 2023

Paysika Cameroon *Douala, Cameroon*

- Led the end-to-end design and implementation of PaySika's core payment and wallet backend from scratch, launching a neo-bank app and scaling to thousands of users across multiple African markets.
- Integrated with third-party card issuers to support virtual and physical Visa cards, covering real-time authorizations, card lifecycle events, and online payment processing in a distributed system.
- Built KYC and compliance services by integrating with external API providers to automate identity verification, sanctions checks, and document workflows that meet regulatory requirements.
- Implemented mobile money integrations with MTN Mobile Money and Orange Money, designing idempotent APIs, retries, and reconciliation flows to ensure accurate wallet balances and transaction histories.

- Owned initial DevOps and platform setup, creating GitLab CI pipelines and AWS infrastructure (EKS, RDS, SQS, S3) to enable frequent, reliable releases and observability for critical payment services.
- **Tech stack: Python, FastAPI, PostgreSQL, Grafana, Redis, AWS (EKS, RDS, SQS, S3), GitLab CI, Visa card issuer APIs, Mobile Money APIs**

Software Engineer February 2020 – October 2021

Upwork *Freelance – Remote*

- Built and scaled a utility billing analytics platform (Flask, Apache Superset, AWS Lambda/S3/ECS/Amplify) that enabled clients to analyze daily, monthly, and yearly expense data.
- Automated billing data ingestion from third-party APIs by building and scheduling workflows with Airflow, keeping the analytics platform updated without manual imports.
- Led backend development of an expense management platform integrating card transactions with QuickBooks via the PLAID API, delivering a unified solution for enterprise clients.
- Cut analytical query times by about 80% (90 seconds to 5 seconds per 1000 rows) by redesigning utility billing data storage from JSON to columnar Parquet on S3.
- Integrated a React single-page app with a Flask/Elasticsearch API and containerized the stack with Docker on AWS, then was retained on an ongoing retainer after the original contract closed to maintain and extend the platform
- Integrated Databricks with Apache Superset for the retained client, connecting Spark-based data processing to the existing analytics dashboards.
- **Tech stack: Python, Flask, Airflow, Databricks, Elasticsearch, Apache Superset, AWS (Lambda, S3, ECS, Amplify), PLAID API, Parquet, React, Docker**

Full Stack Developer March 2019 – February 2020

Muluh Kitchen *Douala, Cameroon (Full-Time – On-site)*

- Built and maintained the backend for an online food-ordering and delivery platform, implementing 20+ REST API endpoints for order management, customer accounts, and kitchen workflow coordination.
- Configured Nginx as a reverse proxy and load balancer, improving application security and uptime during traffic peaks.
- Set up CI/CD pipelines using AWS CodeCommit and AWS CodePipeline to automate builds, testing, and deployments.
- Collaborated with mobile developers to integrate backend APIs, enabling real-time order tracking and status updates for customers.
- **Tech stack: Flask, PostgreSQL, Nginx, AWS (CodeCommit, EC2, CodePipeline, S3), ReactJS**

Projects

Intrvuer | ***Python, FastAPI, Celery, PostgreSQL, Qdrant, sentence-transformers, Next.js*** intrvuer.com

- Built an AI-powered interview preparation platform that parses a candidate's resume and target job description to generate personalized, voice-based mock interviews with adaptive follow-up questions and STAR-style feedback.
- Developed the FastAPI backend with async SQLAlchemy, Celery, and Redis, orchestrating LLM-driven resume analysis, speech-to-text (Faster-Whisper/Deepgram), and text-to-speech (Kokoro/Supertonic) pipelines.
- Implemented Qdrant vector search over sentence-transformer embeddings to match candidate responses to relevant follow-up questions, and shipped a Next.js/React dashboard with score trends and reports.
- Containerized the stack with Docker Compose behind Nginx, with Prometheus, Grafana, Sentry, and Flower for monitoring and observability.

Education

University Institute of Technology of Douala Douala, Cameroon

Bachelor of Engineering in Software Engineering *October 2015 – July 2019*

Languages

English: C1, **French:** C1