# Amit Bera

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## TECHNICAL SKILLS

Languages: Python, JavaScript, TypeScript, SQL

Frameworks / Libraries: FastAPI, Django (DRF), Flask, React, Next.js, Vue.js, TailwindCSS, Celery, Redis, RabbitMQ

Databases: PostgreSQL, MySQL, SQLite

Cloud Platforms & Services: Google Cloud Platform, AWS, Cloudflare R2

Authentication & Security: JWT, OAuth2, SAP Gigya OIDC, Firebase Auth, RBAC

DevOps / Tools: Docker, Git, GitHub Actions, Alembic, Trivy, SonarQube Testing Frameworks: Pytest, Jest, Cypress, Selenium, React Testing Library Monitoring & Observability: OpenTelemetry, Prometheus, Grafana, Loki

## Experience

### Quantiphi (via MyNextDeveloper, Subcontract)

 $Jun\ 2025-Present$ 

Remote - India

Senior Software Developer

- Architected a multi-region backend using FastAPI, PostgreSQL (Cloud SQL), and SCD Type-2 modeling, where each instance in a single region could securely access data across other regions, ensuring global availability.
- Integrated authentication with **SAP Gigya OIDC** and **Firebase**, adding CSRF protection, JWT key rotation, rate-limiting middleware, and a granular **RBAC** system.
- Implemented secure file uploads to **Firebase Storage** with OIDC authentication, and built **BigQuery-powered audit** logging and analytics pipelines for compliance and KPI tracking.
- Set up CI/CD pipelines with GitHub Actions, Docker multi-stage builds, Trivy scans, SonarQube analysis, and deployments on GCP Cloud Run with Cloud Armour.

Tensorpix Dec 2024 – May 2025

Full Stack Developer (Contract)

Remote - Croatia

- Improved large video file uploads efficiency by 70% by implementing presigned URLs and multipart uploads to S3 (Cloudflare R2).
- Enhanced uploads by integrating a **WASM** worker for client-side metadata extraction and thumbnail generation, eliminating server-side indexing.
- Developed a video preview feature with a draggable slider for before/after upscaled video comparison, improving satisfaction ratings from 3.1 to 4.2.
- Launched a no-signup upscaling feature that increased new user sign-ups by 20% within a month.
- Established a CI/CD pipeline using GitHub Actions, enabling faster release cycles with automated testing and deployment.

Elucidata Oct 2022 – Aug 2024

Data Analyst

 $\stackrel{\circ}{Remote}$ 

- Developed the SanityCheck Python library to validate biomedical files, reducing data delivery time by 40%.
- $\bullet \ \ {\bf Automated} \ \ {\bf data\text{-}processing} \ \ {\bf workflows} \ \ {\bf with} \ \ {\bf FastAPI}, \ {\bf Celery}, \ {\bf and} \ \ {\bf Redis}, \ {\bf improving} \ \ {\bf productivity} \ \ {\bf for} \ \ {\bf NextGenJane}.$
- Built and enhanced React applications, including a CurieBio dashboard and Pfizer's internal reporting system.

## **PROJECTS**

#### TNSR.AI

Web Application to Enhance and Restore Media using AI

- Built a full-stack platform for video, audio, and image upscaling using FastAPI, Next.js (TypeScript), and PostgreSQL, deployed on a bare-metal Ubuntu server with Docker.
- Implemented distributed job processing with **Celery**, **Redis**, and **FFmpeg**, enabling scalable AI-powered media processing (super-resolution, denoising, face restoration, audio enhancement).
- Integrated JWT authentication with Google SSO, rate limiting, and secure file storage on Cloudflare R2.
- Added real-time job status updates with WebSockets and billing with Stripe for subscription management and multi-currency support.
- Established CI/CD pipelines with **GitHub Actions** and implemented observability with **OpenTelemetry**, **Prometheus/Grafana**, and **Loki** for metrics and log aggregation.

For more in-depth details about the project, you can visit my blog here.

#### **EDUCATION**

Jai Hind College

Mumbai, India

M.Sc. in Big Data Analytics

Aug. 2020 – June 2022

K.P.B Hinduja College

Mumbai, India

B.Sc. in Information Technology

July. 2017 - June 2020