

RAJDEEP THAOSEN

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Backend Engineer with a Master's in Computer Science from IIT Kharagpur. Production experience in Java, Spring Boot, and Google Cloud Platform building regulated eKYC APIs at a fintech registrar. Led an AI team that shipped a computer vision system to the Indian Ministry of Defence.

TECHNICAL SKILLS

Languages & Backend: Java, Python, C++, SQL, Spring Boot, FastAPI, REST API design, OpenAPI, Swagger, Microservices, Maven, Apigee, JWT, RBAC, WebClient, PostgreSQL, AlloyDB, MySQL, Cloud SQL
ML / Computer Vision: PyTorch, TensorFlow, ONNX Runtime, YOLOv8, YOLOv11, RT-DETR, EfficientNet-B0, PaddleOCR, OpenCV, DICOM, model serving, anomaly detection, OCR pipelines
Cloud / DevOps: GCP, Google Kubernetes Engine (GKE), Cloud Run, Cloud SQL, AlloyDB, Artifact Registry, Secret Manager, Cloud Logging, Docker, Helm, ArgoCD, GitLab CI/CD, Linux, Git
Auth / Identity & Practices: Microsoft Entra ID (Azure Active Directory), SSO, JWT, RBAC, Agile, Scrum, code review, OpenAPI-first design

PROFESSIONAL EXPERIENCE

Software Development Engineer, Backend July 2025 – Present

CAMS, Chennai — Platform Modernisation Program (CAMSKRA)

KYC Hub — Investor and Client-Facing eKYC Platform

- Build and maintain Spring Boot REST APIs in Java for investor-facing eKYC flows and client-facing Push APIs consumed by Asset Management Companies (AMCs); documented contracts via OpenAPI / Swagger; shipped under Scrum / Agile cadence on the GCP stack with AlloyDB managed PostgreSQL.
- Onboarded partners (PhonePe, Doctor Finance) end-to-end: provisioned Apigee apps with tenant credentials, configured Apigee-issued JWT auth, and designed RBAC across 10+ roles for client / partner / agent hierarchies powering the In-Person Verification (IPV) workflow.
- Integrated HyperVerge APIs for Aadhaar-based eSign in the KYC journey, handling partner auth, retries, and regulatory compliance for a flow consumed across multiple AMC integrations.

Enterprise Delivery Hub, Odin, and StandSync — Deployment and Integration Owner

- Integrated and deployed three internal full-stack applications onto Google Kubernetes Engine (GKE) via GitLab CI/CD pipelines, Helm charts, and ArgoCD GitOps workflows; debugged inter-service communication via cluster DNS, Apigee proxies, and Cloud Logging; serving ~200 stakeholders across 12 roles.
- Implemented Microsoft Entra ID (Azure AD) SSO end-to-end — app registration through token validation and RBAC; coordinated cross-team delivery with Infra, DevOps, and InfoSec.

AI Team Lead, Computer Vision

August 2024 – May 2025

Salphan Energy Pvt. Ltd., Odisha — Industry-sponsored project for Ordnance Factory Badmal, Ministry of Defence

- Led an AI team replacing the factory's manual inspection workflow for detecting anomalies (cracks, piping, cavities) on critical manufacturing equipment with an end-to-end computer vision system.
- Built the DICOM pre-processing pipeline (PaddleOCR for serial / batch / orientation metadata extraction) plus upstream classification models for outlier filtering and orientation correction before feeding the anomaly detector.
- Owned annotation and validation of 25,000+ DICOM images across multiple anomaly classes; set the labelling protocol used by the team.
- Trained and benchmarked YOLOv8, YOLOv11, and RT-DETR for multi-class anomaly detection on industrial X-ray imagery; YOLO variants outperformed RT-DETR and were chosen for deployment.
- Reached ~85% precision on on-site validation by end of tenure; client adoption led to a follow-on project for the company.

PROJECTS

VeriKYC — CV-Powered KYC Verification Platform

April 2026 – Present

Personal Project — github.com/veriKYC/veriKYC

- Building an end-to-end KYC platform with Java Spring Boot as orchestration layer, FastAPI (Python) as the ML inference / model serving tier, and React as the consumer frontend — replicating a production eKYC stack across PAN, Aadhaar, Passport, Driving License, and Cheque.
- Integrated EfficientNet-B0 (ONNX) document classification into the synchronous Spring Boot request path via WebClient; PaddleOCR field extraction and per-document-type validation (PAN regex, Verhoeff checksum, IFSC, MRZ parsing).
- Deployed backend to GCP Cloud Run with Cloud SQL (PostgreSQL); structured as independently deployable microservices with JWT auth, RBAC, and paginated document management APIs.

EDUCATION

Indian Institute of Technology, Kharagpur — M.Tech, Computer Science & Data Processing — CGPA 8.01 / 10
July 2023 – June 2025

Thesis: CV for Industrial X-ray Anomaly Detection — with Ordnance Factory Badmal