Hitarth Bharad

Tucson, AZ

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Software Engineer

Software Engineer specializing in secure, scalable enterprise applications and identity management solutions. Experienced in building resilient microservices, implementing modern web security protocols, and designing cloud-native systems that handle mission-critical authentication and authorization workflows at scale.

Education

University of Arizona – Tucson, AZ, USA GPA: 3.9/4.0
M.S. in Information Science & Machine Learning Aug 2023 – May 2025

Dhirubhai Ambani University – Gandhinagar, India
B.Tech. in Information and Communication Technology Aug 2017 – May 2021

Experience

Software Engineer , FERO.AI – Dubai, UAE Sept 2021 – July 2024

- **Architected secure multi-tenant authentication systems** using Java Spring Boot and FastAPI, implementing OAuth 2.0 and JWT-based authentication for a SaaS platform serving enterprise logistics clients across multiple regions in Europe, MENA and APAC.
- **Built ETL pipelines** processing data from 30+ third-party systems using Kafka and Redis, achieving 99.9% uptime and reducing data processing latency by 35% through optimized async job processing
- **Delivered enterprise microservices suite** by leading the development of secure Authentication, Payments, and Revenue Tracking modules from scratch, implementing API gateways that processed 1M+ daily requests with consistent sub-200ms response times under peak traffic loads
- **Drove iPaaS platform creation (CrossDock)** by architecting standardized integration APIs and building reusable ETL components, accelerating internal development velocity by 60% and enabling instant plug-and-play connectivity across enterprise systems
- **Established comprehensive observability framework** by deploying Prometheus monitoring and Grafana dashboards across all services, configuring automated incident response that maintained 99.95% availability and reduced MTTR by 70%
- **Transformed API performance benchmarks** by implementing strategic PostgreSQL indexing, Redis caching layers, and optimized connection pooling, delivering 50% faster response times for critical authentication and data retrieval operations
- **Partnered directly with C-level stakeholders** across Sales, Operations, and Finance teams to architect secure analytics APIs and data export systems, implementing granular access controls and comprehensive audit logging for sensitive business intelligence

Associate Software Engineer, Verse Innovation – Bengaluru, India June 2021 – Aug 2021

- **Developed scalable backend infrastructure** using Java Spring Boot for a high-traffic video streaming platform serving 10M+ daily active users, focusing on system stability and resilient service architecture
- **Optimized enterprise API performance** reducing response times by 40% and increasing throughput by 25% through efficient caching strategies, database query optimization, and load balancing implementation
- **Built secure user management services** with role-based access control and JWT authentication, integrating AI-driven content recommendation systems that improved user engagement by 20% and retention by 15%

Skills

- **Core Programming:** Java (Spring Boot), Python, TypeScript, JavaScript, Rust, C++
- **Enterprise Development:** RESTful API Design, Microservices Architecture, OAuth 2.0, Authentication Systems
- **Backend Frameworks:** Spring Boot, FastAPI, Django, Express.js
- **Cloud & Infrastructure:** Azure (Active Directory, Blob Storage), AWS, Kubernetes, Docker, Infrastructure as Code
- **Security & Identity:** OAuth 2.0, JWT, Multi-tenant Authentication, Identity Access Management (IAM)
- **Data & ETL:** Kafka, Redis, PostgreSQL, MySQL, MongoDB, ETL Pipelines, Data Integration
- **Frontend:** React, Next.js, TypeScript, Responsive Web Development
- **DevOps & Monitoring:** Jenkins, CI/CD, Prometheus, Grafana, Terraform, Containerization
- **Scripting:** Python, Bash, Linux System Administration

Projects

Enterprise Sales Analytics Pipeline

Technologies: Java Spring Boot, Next.js, TypeScript, PostgreSQL, Apache Kafka, Redis, Docker

- **Engineered end-to-end ETL pipeline** using Java Spring Boot to process multi-source sales data from CRM, ERP, and payment systems, orchestrating real-time data ingestion through Kafka streams and batch processing jobs that handle 2M+ transactions daily
- **Developed responsive analytics dashboard** with Next.js and TypeScript frontend, implementing secure authentication and role-based access controls that enable sales teams to visualize KPIs, track performance metrics, and generate executive reports in real-time
- **Architected PostgreSQL data warehouse** with optimized schema design and automated ETL workflows, implementing incremental data loading and conflict resolution strategies that reduced processing time by 65% while maintaining data consistency across 15+ source systems

Auto PO Processor - https://auto-po.vercel.app

Technologies: Next.js, TypeScript, FastAPI Python, ShadCN UI (Tailwind)

- **Built enterprise document processing platform** automating PDF purchase order data extraction using OCR, reducing manual data entry by 90% while maintaining 95% accuracy through intelligent validation workflows
- **Designed responsive React-based interface** with TypeScript for real-time data editing and approval workflows, implementing role-based access controls and audit trails for enterprise compliance requirements
- **Implemented secure API architecture** with FastAPI backend supporting CSV exports, dashboard analytics, and multi-user session management for enterprise procurement teams

Connect IO – LLM Agent for Journals – https://connect-io-rust.vercel.app

Technologies: Next.js, Django, OpenAI, Pinecone, MongoDB, Clerk

- **Developed secure authentication system** using Clerk integration with role-based access controls, implementing OAuth 2.0 flows for seamless user onboarding and session management
- **Built enterprise search capabilities** using Pinecone vector database and Neo4j graph technology for semantic journal entry discovery, enabling complex relationship queries across large document repositories
- **Integrated advanced NLP processing** with OpenAI embeddings for context-aware content analysis, implementing secure API rate limiting and data privacy controls for enterprise deployment.

Tucson Crime Pattern Analysis Dashboard

Technologies: R (Shiny App, Quarto), PostgreSQL, Leaflet.js, Time-Series Analysis

- **Built enterprise analytics dashboard** using R Shiny with PostgreSQL backend, implementing secure API connections to local police department systems for real-time crime data visualization
- **Designed interactive geospatial interface** with Leaflet.js integration, enabling law enforcement to filter and analyze crime patterns by time, location, and incident type for resource allocation optimization