

## **NIKHIL BHAGAT**

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Address: Hathkhola, Biratnagar, Nepal

#### **Objective**

Full Stack Engineer with 8+ years of experience building scalable APIs, real time systems, and AI powered products. Specialized in Python-based backends, cloud-native architectures, and integrating Generative AI using LLMs like OpenAI and LangChain. Passionate about system design, performance optimization, and building intelligent, automation first backend solutions.

#### **Technical Skills**

- ✓ Languages: Python, JavaScript (ES6+), SQL
- Backend Frameworks: Django, Django REST Framework, FastAPI, Node.js (Express.js)
- AI / GenAI: OpenAI API, LangChain, LlamaIndex, Vector DBs (Pinecone, FAISS), Transformers, TensorFlow
- ✓ Databases: PostgreSQL (with PostGIS), MongoDB, Redis
- Cloud & DevOps: Docker, Kubernetes, AWS (Lambda, EC2, S3), GitHub Actions, Jenkins, Terraform, Ansible
- Architecture: RESTful APIs, Microservices, Event-Driven Design, Kafka, Webhooks, Background Workers (Celery + Redis)
- ✔ Realtime & Notifications: Firebase, WebSockets, Push Notifications
- Testing & Observability: Pytest, Postman, Django Debug Toolbar, Logging & Metrics

#### **Projects**

#### 1. Rani (Code Debugger Al Tool)

- GitHub: <u>Link</u>
- Built a chatbot leveraging OpenAl API to analyze and explain codebases, reducing debugging time by 30%.
- Tech Stack: Python, LangChain, Generative Al

#### 2. Tung Tung (Location Based Game Full Backend mechanics API's)

- Github: Link
- Built a real-time backend for a GPS-based multiplayer game where users can claim zones, engage in strategic attacks, and take ownership of rival territories.
- Implemented geofencing, real-time push notifications, and live synchronization to deliver dynamic gameplay and territory battles across an interactive map.
- Integrated secure user authentication, scalable data handling, and an official leaderboard system tracking the top 100 players for competitive ranking.
- Built with Django, Django REST Framework, and GeoDjango, using PostgreSQL +
  PostGIS for spatial data, JWT authentication, Celery + Redis for background tasks,
  Firebase for push notifications, and PostGIS spatial queries to power real time zone
  battles, leaderboards, and geolocation based gameplay.

#### 3. Neural Network Visualizer Tool

- Live Demo: <u>Link</u>
- Created an interactive React.js tool to visualize neural networks, adopted by 200+ users for educational purposes.
- Tech Stack: React.js, D3.js, TensorFlow

# 4. Wahi AI (Nepal Financial Reporting Standards (NFRS)) [ Full Backend Api's ]

- Github: Link
- Developed an intelligent document driven conversational AI system to assist users with Nepal Financial Reporting Standards (NFRS), delivering accurate, context aware guidance in both English and Nepali.
- Implemented secure JWT authentication, multilingual support, semantic document processing, and vector based retrieval using FAISS for precise, real-time financial query responses.
- Built on Django REST Framework, FAISS for semantic search, JWT for authentication, and advanced NLP models to power AI driven conversational experiences.

#### 5. Microservice Generator Tool (Turbogen)

- npm Package: <u>Install it</u> ( npm i turbogen )
- Automated microservice scaffolding, cutting setup time by 50% for Node.js projects.
- Tech Stack: Node.js, CLI Tools

#### 6. Battisputali Backend (Community App Just like a TikTok)

- GitHub: Link
- Developed a scalable backend for a community app serving 10k+ users with real-time features.
- Tech Stack: Node.js, MongoDB, WebSocket, Cloudinary

(Additional projects: Portfolio | Github)

#### **Educational Qualification**

#### **Bachelor of Computer Application (BCA)**

Mahendra Morang Aadarsha Multiple Campus | 2025

#### **Secondary School Certificate**

Merryland College | 2013

#### **Experience**

# CineART • Hong Kong • 06/2022 — Present Senior Backend Developer

Lead backend development for a LinkedIn style platform for Nepal, building scalable APIs using Django REST Framework.

- Designed and deployed microservices with Docker and Heroku; planning AWS migration.
- Implemented engagement based algorithm to rank user posts and boost content visibility.
- Set up CI/CD with GitHub Actions and integrated third party services.
- Implemented secure auth systems (JWT), optimized performance with Redis, and improved server efficiency.
- Collaborated with cross functional teams and mentored junior developers for clean, test-driven code.
- Collaborated with other team members to troubleshoot and resolve issues efficiently.

#### **Certifications & Open Source**

- ✓ npm Contributor: Published Turbogen (1k+ weekly downloads) and 4+ utility packages.
- ✓ Open Source: 75+ repositories with 50+ stars; active contributor to AI/ML tools.

### **Core Competencies**

- ✔ API Design & Scalability | CI/CD Pipelines | Agile Development
- ✔ Problem-Solving | Cross-functional Collaboration | Technical Documentation

#### **Interests**

Generative AI Research, Cloud Native Architecture, Open Source Development