Natasha Shrestha

Full-Stack Developer | AI and Deep Learning

Lalitpur, Nepal | sthnatasha111@gmail.com | +977 9810027291 | github.com/Natasha-jpj | natashashrestha.com.np

Professional Summary

Full-stack developer with a first-class honours degree in Computer Science from Herald College Kathmandu. Experienced in building production web applications with Next.js, React, Spring Boot and Laravel, and in training deep learning models for image and text classification. Currently part of the team building an ERP system at Otech Pvt Ltd. Combines full-stack engineering with applied AI to build systems that solve real problems.

Technical Skills

- Languages: Java, JavaScript, Python
- Frameworks: Next.js, React, Spring Boot, Laravel
- Databases: PostgreSQL, MongoDB, Supabase, Neon
- AI and Data: CNNs from scratch, Transfer Learning (MobileNetV2), NLP Text Classification, BiLSTM, GloVe Embeddings, PySpark, Hadoop
- Systems: REST APIs, CI/CD, Real-Time Systems, Chatbot and LLM Integration, PhotoBased Attendance
- Tools: Git, VS Code, Postman, Vercel

Experience

Software Developer, Otech Pvt Ltd, Sanepa, Lalitpur

May 2026 – Present

- Part of the team building an ERP system covering organization, HR, procurement, vendors and employee management.
- Develop the frontend in Next.js and the backend in Spring Boot (Java).
- Work with CI/CD pipelines to build, test and ship changes.

Junior Developer, Paradox City Inc, Bouddha, Kathmandu

Dec 2025 – May 2026

- Built and maintained full-stack web applications used by real customers in production.
- Worked on both frontend (React, Next.js) and backend layers across several projects.
- Improved key UI/UX flows and fixed performance bottlenecks in existing systems. Shipped features
- in an agile team under real deadlines.

Intern, Web Developer, Paradox City Inc, Bouddha, Kathmandu

Sep 2025 – Nov 2025

- Contributed to live projects from the first week, on frontend interfaces and backend API integrations.
- Got up to speed quickly on the company's tech stack and workflow.

Projects

ERP System | 2026 – present

Next.js, Spring Boot, Java, CI/CD

- Single platform for organization and HR modules, employee management, holiday and shift roster management.
- Procurement workflow covering PRFs, vendors and item management, with automated build and deployment.

MyPharmacity: AI-Powered Pharmacy Management System | 2025–2026

Image classification, React, Next.js, REST APIs, Supabase

- Pharmacists scan a medicine's image and the system adds it to inventory or the point of sale automatically, removing manual data entry.
- Real-time image recognition pipeline with automatic stock updates after each classification.

Organization Management System: Enterprise Platform | 2025–2026

React, Next.js, Prisma, PostgreSQL, Neon, WebSockets

- Multi-role system for HR, managers and employees, each with their own access controls and workflows.
- Photo-based facial attendance, leave management, task and project tracking, and contract-based employee records.
- Real-time messaging and broadcasts, plus salary audit tools for payroll review, exception tracking and compliance reports.

Garbage Image Classifier | 2026

Python, TensorFlow/Keras, CNN, MobileNetV2, scikit-learn

- Classifies waste photos into 12 categories using about 15,500 images, with an 80/10/10 train, validation and test split and class weights for imbalance.
- Compared a baseline CNN and a deeper CNN (batch normalization, dropout), Adam against SGD, and ran a dropout ablation study.
- Fine-tuned MobileNetV2 to reach 94.7% test accuracy, up from 72.4% for the best CNN trained from scratch.

Hate Speech Detector | 2026

Python, TensorFlow/Keras, scikit-learn, TF-IDF, BiLSTM, GloVe

- Classifies about 24,800 tweets as hate speech, offensive language or neither, on a dataset where hate speech is about 6% of examples.
- Compared a TF-IDF and logistic regression baseline with a simple RNN, a BiLSTM and a BiLSTM using GloVe Twitter embeddings.
- Evaluated with macro F1 rather than accuracy; the baseline reached 0.74 macro F1 and the GloVe model had the highest hate speech recall (about 73%).

Waste Management System | 2024

HTML, CSS, PHP, MySQL, ClickSend SMS API

- Two-actor platform where residents request waste pickups and collectors receive instant SMS alerts, with no mobile app needed.

Client Websites | 2024–2025

- otec.com.np: corporate website for Otech Pvt Ltd
- pci.com.np: corporate website for P.City Tech Nepal
    - barbyjohn.com: business landing page

Education

Bachelor's degree in Computer Science, First Class Honours

Herald College Kathmandu | 2022 – 2026

+2 Science

Omega International College | Completed 2022

Additional Information

- Languages: Nepali, English, Hindi
- Independently studied deep learning, NLP and big-data tools (Spark, Hadoop) beyond coursework.
- Interested in scalable system architecture, automation pipelines and LLM-integrated applications.
- Committed to clean, maintainable code and products with real-world impact.