

# Bishwa Thakuri

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## PROFILE

Responsive results-focused Full-Stack Developer and AI/ML Engineer with 2+ years of experience building and powering applications with scalability in mind. Proficient in Python, PHP (Laravel), JavaScript, and React JavaScript framework; strong relevant experience in NLP, Computer Vision, and Generative AI (PyTorch and Hugging Face). Proven experience designing and delivering end-to-end solutions and improving system performance in the FinTech, e-commerce, and healthcare domains. Current studies are focused on further developing knowledge and skills in AI/ML.

## EDUCATION & QUALIFICATIONS

Lambton College - Toronto, ON - Postgraduate in Artificial Intelligence and Machine Learning	2024 - 2026
The British College - BSc. Computing (Hons) Information Technology	2019 - 2022

## TECHNICAL SKILLS

- Programming Languages:** Python, PHP, JavaScript, HTML, CSS
- Frameworks & Libraries:** Laravel, Django, React, TensorFlow, Scikit-learn, Flask, PyTorch
- Databases:** MySQL, Oracle DB, SQLite
- Tools & Platforms:** Git, Postman, Jira, Hugging Face, Trello, Slack, Docker
- Data Science & NLP:** Pandas, NumPy, Matplotlib, Seaborn, NLTK, SBERT, spaCy
- Cloud & Deployment:** AWS, Google Cloud (BigQuery), Gradio, Streamlit

## WORK EXPERIENCE

### JUNIOR FULL STACK DEVELOPER | F1Soft International Pvt. Ltd. Dec 2022 to Apr 2024

Lalitpur, Nepal

- Built and optimised Laravel/PHP applications with MySQL and Bootstrap, improving system performance by 20% by optimizing queries and adding caching benefits.
- Built and integrated RESTful APIs, reducing response times by 10% and improving client-server reliability.
- Designed and deployed secure CMS solutions, reducing content errors by 15% and improving maintainability.
- Collaborated with cross-functional product teams in an Agile environment, achieving 95% on-time delivery of the user-focused features.
- Created responsive UIs using HTML, CSS, JavaScript, and Bootstrap, reducing UI related defects across different devices.
- Used Git version control and contributed to each phase of the SDLC, from requirements right through to deployment.

### JUNIOR FULL STACK DEVELOPER | Feat International Pvt. Ltd. Jul 2022 to Dec 2022

Lalitpur, Nepal

- Delivered scalable web applications using Laravel, PHP, MySQL, and Bootstrap, improving database performance by 15%.
- Collaborated with design teams to implement responsive, user-friendly UIs, enhancing user experience and design consistency.

- Developed and maintained modular code structures following MVC practices, improving maintainability and scalability.
- Handled end-to-end project responsibilities independently on real-time client projects, ensuring timely delivery.
- Leveraged Git for version control and integrated solutions smoothly within team projects.

## ACADEMIC PROJECTS

### Web App Resume Parser

- Built a web-based parser to scrape candidate details from resumes in PDF/DOCX.
- Utilized TF-IDF, Cosine Similarity, and SBERT embeddings, achieving a skill extraction accuracy of 85%.
- Built a Flask front-end for real-time parsing and visualizing results.
- Technologies: Python, Flask, SBERT, NLP, Pandas, NLTK, HTML, CSS, JavaScript

### Object Detection and Audio Description for Accessibility

- Constructed a real-time computer vision system using YOLOv8 to identify objects and provide audio descriptions for users with limited or no eyesight.
- Integrated BLIP for text captions and TTS for spoken feedback.
- Optimised for low-latency detection to maximize accessibility and user autonomy.
- Technologies: Python, PyTorch, YOLOv8, OpenCV, BLIP, TTS, NumPy

### Food Vision Classification System

- Developed a Vision Transformer (ViT) model that achieved 92% accuracy on the Food-10 dataset.
- Significantly improved performance from CNN baselines by 10% through preprocessing and tuning.
- Technologies: Python, PyTorch, TensorFlow, Keras, Pandas, NumPy, Matplotlib

### Generative Adversarial Network (GAN) for Image Enhancement

- Developed and trained a GAN model by augmenting low-quality smartphone photos to high-quality DSLR photos.
- Surpassed DPED benchmarks with substantially higher PSNR and SSIM scores and better clarity.
- Technologies: Python, PyTorch, GANs, NumPy, Matplotlib