

Shanilka Haturusinghe

🌐 <https://shanilka.me>

☎ +94 70 340 0702

✉ shatur251@kln.ac.lk

🐙 github.com/haturusinghe

🌐 [linkedin.com/in/s-haturusinghe](https://www.linkedin.com/in/s-haturusinghe)

✉ s.haturusinghe99@gmail.com

EDUCATION

University of Kelaniya, Sri Lanka

March 2020 – October 2024

Bachelor of Science Honours in Computer Science (*First Class*)

Specialization: Artificial Intelligence

GPA: 4.0/4.0

- Won gold medals for Best performance - Faculty of Computing and Technology, University of Kelaniya.

Royal College, Colombo, Sri Lanka.

2018

G.C.E Advanced Level in Mathematics Stream (English Medium)

Results: A in Combined Mathematics, B in Physics, B in Chemistry

PUBLICATIONS

Shanilka Haturusinghe, Tharindu Cyril Weerasooriya, Christopher M Homan, Marcos Zampieri, and Sidath Ravindra Liyanage. 2025. *Subasa – Adapting Language Models for Low-resourced Offensive Language Detection in Sinhala*. In *Proceedings of the 2025 Conference of the Nations of the Americas Chapter of the Association for Computational Linguistics: Human Language Technologies (Volume 4: Student Research Workshop)*, pages 260–270, Albuquerque, USA. Association for Computational Linguistics. DOI: 10.18653/v1/2025.naacl-srw.26

Link: <https://aclanthology.org/2025.naacl-srw.26/>

Ushara Prabash Christy Melder, **Shanilka Haturusinghe**, and S.P. Kasthuri Arachchi. *Customer segmentation and churn prediction in the maritime shipping industry using machine learning techniques: A Sri Lankan case study*.

Accepted at ICARC 2026

TEACHING EXPERIENCE

University of Kelaniya

August 2025 - Present

Lecturer (Temporary)

- Lecturer-in-Charge for CSCI 31032 - **Theory of Programming Languages**: responsible for delivering all lectures, of-office hours, assignments, grading, and examinations for this module.
- Contributing lecturer for CSCI 31022 - **Machine Learning and Pattern Recognition**; Contributing lecturer for CSCI 11532 - **Structured Programming I**.

University of Kelaniya

February 2025 - July 2025

Teaching Assistant & Demonstrator

- Served as TA for: *DSCI 32012 - Advanced Database Applications (70 students)*, *CTEC 22043 - Object Oriented Programming (50 students)*, *AINT 32012 - Digital Image Processing and Computer Vision (10 students)*, *CSCI 22082 - Object-Oriented Programming II (50 students)*. Conducted office hours, led labs, and developed and graded assignments.

INDUSTRY EXPERIENCE

Embla Software Innovation (Pvt) Ltd

October 2023 - April 2024

Software Engineer Intern

- Developed and implemented the "Scrapbook" feature for Embla FT genealogy application with customizable page templates, editable text/photo elements, and comprehensive image/content management capabilities.
- Built full-stack components using C#/.NET Core backend and Angular 9/TypeScript frontend, enhancing existing application architecture to support new scrapbook functionality and user interactions.
- Collaborated with product teams using Agile methodologies, Jira, and Bitbucket for project delivery, utilizing Visual Studio, FastReport Designer, and Figma for development and design tasks.

Xempler Pte. Ltd

September 2022 - May 2023

Intern - Software Developer

- Designed and implemented an image processing pipeline for Sri Lanka License Plate Detection using Python, TensorFlow, and YOLO models; applied OpenCV preprocessing techniques (resizing, filtering, edge detection) to optimize detection accuracy, and integrated Tesseract OCR for alphanumeric text extraction.
- Designed and implemented a real-time chat feature for the IFAWPCA mobile app, built with React Native. Integrated Firebase for seamless real-time messaging, utilizing Firebase Realtime Database

and Firebase Authentication for user management, secure login, and instant message synchronization across devices.

ACHIEVEMENTS, AWARDS AND HONORS

- **Gold Medal** for Academic Excellence (2025) – Awarded by the Alumni Association of the University of Kelaniya.
- **Gold Medal** for Outstanding Performance (2025) – Awarded by the Faculty of Computing and Technology.
- **Google Cloud Research Credits Program (Award GCP19980904)** – Awarded **\$1000** in research credits
- **Huawei Seeds for the Future - 2023**
 - Selected as one of only four top university students from a highly competitive pool, earning the opportunity to visit China.
 - Participated in Training program, received mentorship from top industry experts on cutting-edge technologies including 5G, AI, Cloud Computing, and Digital Power.

SKILLS & TECHNOLOGIES

- **Programming Languages:** Python, C#, TypeScript, Kotlin, LaTeX
- **ML / DL Frameworks:** PyTorch, TensorFlow, TensorFlow Lite, Keras, Scikit-learn, CatBoost
- **Image Processing & CV:** OpenCV, YOLO, CNN architectures, GPU & NNAPI acceleration, Tesseract OCR
- **LLMs, NLP & Generative AI:** Hugging Face Transformers, LangChain, LangGraph, Llama, Mistral, LoRA/QLoRA, SFT, DPO, RAG
- **MLOps & Experiment Tracking:** ZenML, AWS SageMaker, Weights & Biases, Comet ML, Docker
- **Data & Databases:** MongoDB, Qdrant, Pandas, Polars, Jupyter Notebooks
- **Web & APIs:** FastAPI, Flask, Streamlit
- **Dev Tools:** Git, GitHub, Bitbucket, Jira, Jupyter

PERSONAL PROJECTS

PersonaCraft.AI - Personalized AI Writing Assistant

<https://github.com/haturusinghe/persona-craft-ai>

- Developed an end-to-end system for creating personalized AI writing assistants through automated data collection, processing, and model fine-tuning with multi-platform web scraping capabilities.
- Built automated data extraction pipelines using Selenium for LinkedIn, Medium, GitHub, and custom web sources, implementing advanced text processing with chunking and embedding generation via Sentence Transformers.
- Engineered training pipeline supporting both Supervised Fine-Tuning (SFT) and Direct Preference Optimization (DPO) using TRL and Unsloth,.
- Implemented MLOps architecture using ZenML for pipeline orchestration, MongoDB for data warehousing, Qdrant vector database for RAG-based retrieval, and AWS SageMaker for cloud-based model training.
- **Key Technologies:** Python, ZenML, LangChain, GPT-4, Llama 3.1, TRL, Unsloth, MongoDB, Qdrant, AWS SageMaker, Selenium, Docker, Poetry, Comet ML

Real-Time Fashion Recommendation System

<https://github.com/haturusinghe/realtime-fashion-recommender>

- Developed a MLOps-driven fashion recommendation system using H&M's Kaggle dataset, implementing a 4-stage architecture with decoupled ML pipelines for feature processing, training, and inference.
- Implemented a two-tower neural network architecture for customer&item embedding generation, utilizing Hopsworks Feature Store for embedding storage and retrieval.
- Built comprehensive ML pipelines including feature engineering, retrieval model training (two-tower architecture), ranking model training (CatBoost), item embedding computation, and model deployment with real-time inference capabilities.
- Integrated Hopsworks Feature Store for feature management, Model Registry for versioning, and Model Serving for deployment, with an interactive Streamlit frontend for customer recommendations and feedback.
- **Key Technologies:** Python, TensorFlow, Hopsworks, Sentence-Transformers, CatBoost, Polars, Streamlit

Deep Learning-based Real-Time Facial Age and Gender Detection System

- Designed and trained CNN models (separable convolutions, batch normalization, LeakyReLU, dropout) on the UTKFace dataset with data augmentation, achieving robust age regression and binary gender classification.
- Built an end-to-end image processing and inference pipeline with TensorFlow Lite, supporting CPU, GPU acceleration, and NNAPI for on-device real-time inference on Android.
- Optimized model performance using Adam optimizer with learning rate scheduling, early stopping, and model checkpointing; monitored training with TensorBoard.
- **Key Technologies:** Python, TensorFlow, TF-Lite, TF-Serving, Flask, Kotlin, Android Studio, OpenCV

REFERENCES

Prof. S. R. Liyanage

Professor, Department of Software Engineering, Faculty of Computing and Technology, University of Kelaniya
Email: sidath@kln.ac.lk, **Phone:** +94 71 649 8614