

Chanaka Prasanna

Software Engineer

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Professional Summary

A fresh graduate specializing in Software Engineering with a strong focus on **Artificial Intelligence, Machine Learning, and Reinforcement Learning**. A skilled **Technical Writer** and innovative thinker with a passion for developing original products and practical AI-driven solutions.

Experience

Infinity Innovators, Software Engineer - Intern

Bambalapitiya, Colombo
January 2024 – June 2024

- Contributed to the development of a vehicle management app: MyRide
- Designed initial database schema using ER diagrams.
- Developed mobile screens in React Native and implemented backend APIs using AWS Lambda
- Handled Android notifications using AWS SNS for real-time updates.

Enlear, Technical Writer - Part time

Moratuwa
March 2025 - Present

- Write technical articles and tutorials on AI, Machine Learning, Deep Learning, and Generative AI.

Contributions

Dataset on kaggle

2025

A dataset on converting Regular Expressions to epsilon-NFA

[Link](#)

Projects

StateForge: Final Year Research ([Live Website](#), [Backend](#), [Frontend](#))

- Addressed the limitations (**inaccuracies, inconsistencies, unreliable diagram generation**) of GenAI models in the field of automata
- Tools Used: PyTorch, Next.js, FastAPI, Python, LangGraph

DewFlow (Ongoing)

- Building a full-stack community-driven Q&A platform inspired by StackOverflow, enhanced with AI-powered answers, voting, bookmarking, and personalized recommendations.
- Implementing authentication, content moderation, and gamification features within a scalable architecture.
- Tools Used: Next.js, TypeScript, MongoDB, NextAuth, TailwindCSS, ShadCN UI

Agentic Software Engineer ([GitHub](#))

- A multi-agent system to generate complete web applications from natural language descriptions.
- Implemented three specialized agents: **Planner**, **Architect**, and **Coder**, with custom tools for autonomous project coordination and code generation.
- Tools Used: Python, LangChain, LangGraph

Multi-Agent Research Workflow Automation ([GitHub](#))

- Developed an AI-driven research assistant that autonomously generates analyst personas, conducts multi-agent

interviews, and retrieves data from web and Wikipedia sources.

- Produces structured technical reports using LangGraphs state-based workflows, human-in-the-loop feedback, and generative reasoning techniques.
- Tools Used: Next.js, Python, LangGraph, Docker

LLM-Based Multi-Agent Task Orchestration Platform ([GitHub](#))

- Built an LLM-based multi-agent orchestration platform with modular planner and worker agents for automated task planning and execution.
- Tools Used: Python, Streamlit, Qwen2.5

FlappyBird AI Game ([GitHub](#))

- Developed a Flappy Bird reinforcement learning environment in PyGame with a Deep Q-Network agent for game-play automation.
- Built a complete training pipeline with replay buffer, epsilon-greedy exploration, and evaluation playback; currently extending with visualization and advanced RL features.
- Tools Used: Python, PyTorch, PyGame

Sentiment Analysis of Movie Reviews ([GitHub](#))

- Built and deployed a binary sentiment classification model on the IMDB dataset using TF-IDF and feature selection for real-time predictions.
- Tools Used: TensorFlow, Keras, Python, FastAPI, GCP

Potato Disease Prediction ([GitHub](#))

- Developed and deployed a CNN-based image classification model for potato disease detection with advanced pre-processing and multi-class classification.
- Tools Used: TensorFlow, Keras, Python, FastAPI, GCP, Docker

RL Swarm Simulation ([GitHub](#))

- Designed and implemented a custom Python RL environment simulating swarm intelligence using Q-learning and visualization for agent coordination.
- Tools Used: Python, NumPy, Matplotlib

Education

University of Moratuwa, BSc (Hons) in Information Technology

2021 - 2025

- GPA: 3.44, Dean's List: L4S2
- **Major:** Artificial Intelligence, Machine Learning, Deep Learning, Reinforcement Learning

Technologies

- **Languages:** Python, JavaScript, Java, TypeScript
- **Frameworks/Frontend:** React, Next.js
- **Cloud/Infra:** AWS, Google Cloud, Appwrite
- **Agent/Orchestration:** LangChain, LangGraph
- **ML/Data Science:** PyTorch, TensorFlow, scikit-learn, Pandas, Matplotlib
- **Databases/Vector Stores:** MongoDB, Firebase, DynamoDB, MySQL, Pinecone

References

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