Anushanga Galappaththi

Profile

Final year Computer Science and Engineering undergraduate at the University of Moratuwa, specializing in Data Science and Engineering, currently working as an Associate Software Engineer at Nerosoft Solutions. Interested in scalable system design, full-stack development, backend architecture, and modern AI-driven applications.

Contact Details

anushangasharada@gmail.com

+94 71 753 9478

anushanga-galappaththi

anush47

anush47.github.io

238/1, Thunandahena, Kaduwela

Technologies

Programming Languages
- Python, C++, C#, Java, JavaScript, Ballerina

Web Development
- React, Next.js, FastAPI, Spring Boot

Frameworks & Libraries
- TensorFlow, PyTorch, Scikit-learn, LangChain

Databases
- MySQL, MongoDB, PostgreSQL, Firestore

Experience

Associate Software Engineer at Nerosoft Solutions (Pvt) Ltd
Aug 2025 – Present

- Building scalable full-stack applications with robust system design, modular architecture, and optimized deployment workflows.
- Designing and managing relational and NoSQL databases, handling integrations, and developing APIs including GraphQL.
- Implementing AI-driven features while delivering reliable, production-ready software focused on performance, maintainability, and real-world scalability.

Software Engineering Intern at WSO2 LLC
Dec 2024 – May 2025

- Developed the official Ballerina Connector for HubSpot CRM (Leads API) and published a technical guide on its usage: HubSpot Leads Connector with Ballerina.
- Implemented the AI-Assisted API Mocking feature in WSO2 API Manager, enabling intelligent backend response simulation, and authored complete documentation for the feature.
- Gained hands-on experience in enterprise middleware, open-source collaboration, and full-stack feature development.

Engineer Trainee at JF & I Packaging (Pvt) Ltd
Aug 2021 – Oct 2021

- Assisted in troubleshooting and maintaining printing and packaging machinery, gaining practical experience in mechanical and electrical systems.

Education

BSc. (Hons) in Computer Science. University of Moratuwa.
2021 – Present

◇ Specialization: Data Science and Engineering
◇ Current GPA: 3.5 / 4.0

Secondary Education. Royal College, Colombo-07.
2011 – 2020

◇ G.C.E. A/L (Physical Science): 4As - Island Rank 270
◇ G.C.E. O/L: 8As (incl. Commerce, ICT), 1B (English Literature)

Research & Publications

JavaBackports: A Dataset for Benchmarking Automated Backporting in Java.
MSR 2026 (Mining Software Repositories) – Data and Tool Showcase Track

◇ Kaushal Kahapola, Sharada Galappaththi, Dinith Ranasinghe, Ridwan Shariffdeen, Nisansa de Silva, Srinath Perera, Sandareka Wickramanayake

- Curated and released *JavaBackports*, a manually validated dataset of 474 real-world Java backport instances collected from 8 large-scale open-source projects.
- Annotated backports with complexity and intent labels to support systematic benchmarking of LLM-based automated patch backporting approaches.

Technologies (Cont.)

Technical Fields
- Machine Learning, Web Development, Automated Software Eng.

Tools
- Git, Docker, Google Cloud, Unity & Godot, Arduino

Certifications

◇ Fundamentals of Deep Learning
NVIDIA

◇ Machine Learning Foundations
Academy by AWS

◇ Intro to Machine Learning
Kaggle

◇ React
MindLusters

References

Dr. Srinath Perera
Head of Research at
WSO2 LLC
srinath@wso2.com

Dr. Ridwan Shariffdeen
Principal Research Scientist at Sonar
CEO & Co-Founder AutoCodeRover
rshariffdeen@gmail.com

Dr. Sandareka Wickramanayake
Senior Lecturer
Department of Computer Science & Engineering
University of Moratuwa
sandarekaw@cse.mrt.ac.lk

Enhancing Bus Arrival Time Predictions in Transit Networks through Spatio-temporal Forecasting. *ADScAI Summit & Symposium 2025, University of Moratuwa*
◇ Deshitha Gallage, Helith Dulina Gothatuwa, Sharada Galappaththi, Uthayasanker Thayasivam

- Developed a hybrid GNN and Transformer-based model for bus arrival time prediction, utilizing real-world NYC MTA data to capture spatio-temporal transit patterns.
- Achieved improved performance over CNN and GNN baselines, enabling more accurate real-time forecasting.

Projects

Automated Patch Backporting (Research). *2025 Jul – Present*
Technologies: LangGraph | Spring Boot (MCP) | Python | TypeScript

- Designing a multi-agent LLM system with LangGraph to automate patch backporting through orchestrated reasoning, generation, and validation workflows.
- Developing a repository-agnostic code clone detection system using Git history, symbol-level analysis, and TF-IDF to identify patch-relevant code.
- Building a Spring Boot backend with the Model Context Protocol (MCP) for real-time static analysis and a TypeScript-based VS Code extension.

Salary App (SaaS). 🔗 *2024 Jul – Present*
Technologies: Next.js | Node.js | MongoDB

- SaaS payroll and employee management system tailored for medium-scale Sri Lankan businesses, currently used by 25+ registered businesses.
- Built with Next.js with PWA support, secure authentication, client-side caching, prefetching, and MongoDB for scalable data storage.

NextBus: Spatio-temporal Prediction. *2024 Jul – 2024 Oct*
Technologies: FastAPI | Vite | Firebase | GNN | Deep Learning

- GNN-based spatio-temporal models capture route patterns, traffic flow, and stop-to-stop dependencies for accurate bus arrival forecasting.
- Served through a FastAPI backend with a Vite dashboard, using Firebase for real-time data storage and updates.

Competitions

◇ **IDEALIZE 2024 (Team DevTitans)** – SponsorUp
◇ **MoraXtreme 8.0 & 9.0 (Team CodeGlitch)** – 12-hour hackathons
◇ **PREDICTA 1.0 (Team DataDragons_P216)** – Time series prediction
◇ **DATASTORM 5.0 (Team DataDragons)** – Customer segmentation
◇ **IDEALIZE 2021 (Team UnityBrackets)** – Finalist, O/L-Guruthuma app
◇ **Innovate with Ballerina** – TaskSwap

Game Development

◇ **Blocky** – Endless Android game
◇ **XOX 3D** – AI-driven offline and real-time multiplayer
◇ **Sudoku** – Procedurally generated puzzles
◇ **Drive Extreme** – 3D driving simulation
◇ **Flying Bird** – Angry Birds-style game