

Vidun Shanuka Upek

Full Stack & ML Developer Intern

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About Me

Computer Science undergraduate at the University of Westminster with hands on experience in machine learning, DevOps practices and modern software development. I enjoy analyzing problems and designing efficient technical solutions, particularly in automation and intelligent systems. I am passionate about continuous learning and eager to contribute to innovative engineering teams.

Teck Stack/ Skills/ Tools

- **Programming Languages** : Java, Python, Javascript, Typescript, PHP
- **Frontend & Backend Frameworks** : React, Node.js, Express.js, Spring Boot, ASP.NET, tailwind CSS
- **Database & Querying** : MySQL, PostgreSQL, MongoDB, SQL
- **Cloud, Devops & Tools** : AWS, Docker, Kubernetes, Github Workflows (CI/CD), Postman
- **Machine Learning & Data Science:**
 - Numpy, Pandas, Matplotlib, Seaborn, Plotly Express, Scikit Learn, PyCaret
 - Hands on Experience with Regression & Classification models

Education

- **BSc (Hons) Computer Science** | University of Westminster | Affiliated by IIT 2024 – 2028
- **Java Application Development using JavaSE** | University of Colombo 2024
- **GCE AL | Ananda College -Colombo** | Physical Stream 2023
Physics – B | Combine Mathematics – C | Chemistry – C
- **GCE OL | Vidura College -Colombo** | 9 A's | Business Studies | English Literature | ICT 2021

Projects / Experience

- **CrackCode – Gamified Narrative driven Educational Platform** 2025 Sept-2026 March
 - Educational web application built using MERN stack.
 - Technical Lead of the project.
 - Work on Frontend, Backend, Machine learning with Database Integration.
 - Work on Documentation and Design. (UML Diagrams, System architecture, Class Diagrams)
 - Integrated a cloud based code editing environment with real time session management.
 - Integrated mini games, AI agent for narration based code reviews, Narration converter pipeline.
 - Integrated CI/CD pipeline with Docker & Kubernetes.
- **Hotelify – Hotel Booking Platform** 2026 Jan-2026 March
 - Developed a scalable full stack hotel reservation web application using MERN stack.
 - Implement real time room search, availability checks and multi criteria filtering.
 - Secure Authentication and Role management using Clerk.
 - Integrated Stripe payments with web hook verification for secure transactions.
 - Built admin dashboards for hotel owners to manage rooms, bookings and revenue analytics.
 - Implemented REST APIs and full CRUD operations for hotels, rooms and reservations.
- **RentRide – Full Stack Car Rental Website** 2025 Dec – 2026 Feb
 - Built car rental web application with MERN stack with responsive tailwind as frontend.
 - Integrated JWT auth, Database management for booking management and data fetching.
 - Containerized the application with Docker and deployed services with Kubernetes.
 - Implement a CI/CD pipeline using Github actions for built and deployment.

- **DementiaInsight – Non Medical Dementia Risk Classifier** 2025 Dec
 - Developed an automated machine learning pipeline to predict dementia risk using non medical features.
 - Implemented data processing, model training, evaluation and analysis.
 - Build command line prediction tool for real time interface using the trained model.
 - Achieved strong Performance with LightBGM classification model.
 - Presented the project & became Finalist in ModelX Inter-University Hackathon.
- **MedPredict – Medical Cost Prediction Model** 2025 Nov
 - Developed a machine learning model to predict medical insurance cost using selected health indicators.
 - Implemented a Random Forest Regressor to model non linear relationship between lifestyle and demographic factors.
 - Deployed the model using streamlit creating a lightweight interactive interface via browser.

Leadership , Teamwork & Achievements

- Technical Lead and Founder of Project CrackCode (Gamified Educational Platform)
- Team Leader | ModelX InterUniversity hackathon | Finalist
- Team Leader | IEEE Global hackathon | rank 1887 out of 8000 + teams globally
- Vice Captain/ Open batsman/ wicket keeper of School cricket Team
- Cricket captain of H&M Cricket sports Club

Awards

- Award Winner at Annual School Sports Award Ceremony -Colour's Night Event (2016,2017,2018)
- All Island certificate Holder in Cricket (SLSCA Tournaments) | Best Batsman Awards | Best All Rounder Awards
- Award Winner & Bronze Medallist at Annual School Art competitions (2013,2014,2016,2017)

❖ **Languages** : English (Fluent) & Sinhala (Native)

Certifications

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| • Backend Development with ASP.NET (Microsoft) – Coursera | 2026-present |
| • Java Spring Boot (EDUCBA) – Coursera | 2026-present |
| • AWS(Cloud Technical Essentials) – Coursera | 2026 |
| • Introduction to container, Docker, Kubernetes and OpenShift (IBM) – Coursera | 2026 |
| • Linear Algebra for Machine Learning & Data science (DeepLearning.AI)- Coursera | 2025 |
| • RESTful API Backend Application development – Coursera | 2025 |

Modules Followed

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| • Software Development I/II (Python, Java) | • Object Oriented Programming | • Server Side Development |
| • Computer System Fundamentals | • Database Management & Design | • Client-Server Architecture |
| • Mathematics for Computing | • Web Design & Development | • Machine Learning |

References

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