

Avishka Rathnakumara

“Passionate about full-stack development and delivering effective solutions. Experienced in Agile methodology with foundational knowledge of microservices architecture.”

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EXPERIENCE

Intern Software Developer - Green Stream Systems & Solutions (Private) Limited

April 2024 – Oct 2024

[Incorporation.lk](#)

- Worked on a company registration platform to streamline the online business incorporation process.
- Utilized **Google Drive API** for file uploads and backups and developed a fully responsive design using **MERN Stack** and **MUI**.
- Managed user states with **Redux** and implemented secure login with **OTP email validation**. Integrated **PayHere** payment gateway with coupon functionality and added a **PDF viewer** for document management.
 - **Technology stack: MERN Stack, Google Drive API, PayHere, MUI**

[Catch.lk](#)

- Contributed to the development of a vehicle rental platform, providing users with access to reliable vehicles.
- Created a fully responsive design and securely managed both user and owner-side pages.
- Developed the website to showcase application details and built a rental management dashboard using **MUI** with **React.js**, ensuring optimization for **SEO**.
 - **Technology stack: MERN Stack, MUI, REST APIs, SEO**

[Greenstreams.lk](#)

- Developed the company website, ensuring seamless functionality and user experience.
- Integrated 3D model handling using **Three.js** and managed emails with **Nodemailer**.
- Built a fully responsive design with **Tailwind CSS**, optimized for **SEO**, and developed the site using **Next.js**.
 - **Technology stack: Next.js, Three.js, Tailwind CSS, SEO**

Quality Assurance - Global Systems Solutions International (Private) Limited | Nugegoda

Jan 2021 – June 2021

- Trainee Contract Quality Assurance Technician

EDUCATION

Sri Lanka Institute of Information Technology (SLIIT) | Malabe

- BSc. (Hons) in Information Technology Specializing in Software Engineering

Sep 2021 - Present

Royal Central College | Polonnaruwa

- G.C.E. Advanced Level Examination (1A pass & 2B passes for Accounting, ICT & Economics)
- G.C.E. Ordinary Level Examination (7A passes, 1B pass & 1C pass)

2020

2017

Certificate Courses

- Python for Beginners | University of Moratuwa
- Web Design for Beginners | University of Moratuwa
- Foundations of Project Management | University of Moratuwa
- Foundations of User Experience (UX) Design | Coursera
- UI / UX for Beginners | Great Learning Academy
- Build your own Chatbot Using Python | Great Learning Academy
- SEO for Beginners | Great Learning Academy

Nov 2023

Nov 2023

Dec 2023

Dec 2023

Dec 2023

Dec 2023

Sep 2024

TECHNICAL SKILLS

Languages & Frameworks

- Frontend - React.js, Next.js, React Native, JavaScript, HTML
- Backend - Node.js, FastAPI, Spring Boot, Microservices
- Other Languages - C++, Python, Java
- Styling - CSS, TailwindCSS, Material-UI, Bootstrap, Magic-UI
- Databases - MongoDB, MySQL, Firebase, S3 Bucket

Developer Tools

- Version Control - Git, GitHub
- IDEs & Editors - VS Code, Jupyter Notebook, Google Colab
- Design & Prototyping - Figma, MockFlow
- Project Management - Trello, Agile Development
- API Testing - Postman, Insomnia
- Testing & Automation - Selenium, Jest, JUnit
- Cloud & Deployment - AWS, Render, Netlify

Other Skills

- SEO (Search Engine Optimization)
- OOP (Object Oriented Programming)
- Data Structures & Algorithms
- Design Patterns

FREELANCE PROJECTS & EXPERIENCES

AI-Powered IT Recruitment & Skill Matching System | (*Ongoing Research Project*)

Developed an AI-driven platform to streamline IT hiring by matching candidates with jobs using NLP and algorithmic assessments.

- Implemented skill-based tests and video analysis for evaluating candidate aptitude.
 - Built scalable REST APIs using Node.js and MongoDB, deployed with Docker and Kubernetes.
- Technologies: Node.js, Express.js, MongoDB, React.js, Docker, Kubernetes, NLP, CI/CD

Garment Pattern Prediction System | (*Freelance Project*)

Engineered a machine learning-based web system to generate custom garment patterns from user measurements.

- Integrated pattern visualization, SVG/DXF export, and historical tracking.
 - Supported multiple styles with interactive zoom and pan features.
- Technologies: React.js, Node.js, Express.js, MongoDB, Chart.js, Tailwind CSS, JWT

Baby Cry Detection & Monitoring System | (*Freelance Project*)

Designed a full-stack application for real-time baby cry monitoring using live video/audio analysis and AI APIs.

- Integrated AWS S3, cry detection API, SSE for real-time updates, and JWT-auth.
 - Alerts via email on cry detection, with full activity logging.
- Technologies: Node.js, Express, MongoDB, AWS S3, ffmpeg, React.js, Hls.js, SSE

Emotion Tracking & Game Activity Platform | (*Freelance Project*)

Developed a web platform to track children's emotions and recommend activities through interactive puzzle games and video emotion analysis.

- Tracked emotional progression with dashboards, suggested personalized coping activities.
 - Included video uploads, puzzle analytics, and email reports.
- Technologies: React.js, Node.js, MongoDB, Recharts, AWS S3, Multer, Tailwind CSS

Netball Performance Analysis System | (*Freelance Project*)

Created an AI-powered tool for analyzing netball matches and player injuries via video uploads.

- Developed separate Node.js and FastAPI microservices using OpenCV, TensorFlow, and Docker.
 - Stored data using MongoDB and AWS S3; supported coach/player roles with JWT auth.
- Technologies: Node.js, FastAPI, MongoDB, Docker, AWS S3, Mediapipe, TensorFlow

Turtle Health & Weather Prediction System | (*Freelance Project*)

Built a full-stack app for turtle species identification, disease detection, and weather forecasting.

- Integrated React-based UI with AWS S3 image uploads and API-powered classification.
- Technologies: React.js, Node.js, Express.js, MongoDB, AWS S3, Tailwind CSS

Arcana Candles E-Commerce Platform | (*Freelance Project*)

Developed a secure e-commerce platform with Firebase Auth, image storage, and MongoDB product data.

- Enabled user reviews, product updates, and promotional banners with responsive UI.
- Technologies: Firebase, Node.js, Vite, Redux, MongoDB, React.js, Tailwind CSS

Fitness Analyzer | (*Freelance Project*)

Built a computer vision-based fitness tracking app with real-time squat counting and pose analysis.

- Offered exercise intensity tracking and meal planning features.
- Technologies: React.js, WebSocket, MongoDB, Node.js, Tailwind CSS, AWS S3

Virtual Dressing Room with 3D Visualization | (*Academic Project*)

Created an e-commerce platform with 3D garment customization and real-time design adjustments.

- Enabled users to modify colors, upload images, and simulate designs.
- Technologies: React.js, Three.js, MUI, Node.js, Express.js, MongoDB

In addition to this project, you can explore more of my simpler projects, available on my portfolio page and GitHub account.

SOFT SKILLS

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|-------------------------|---------------------|
| • Communication | • Resilience |
| • Problem Solving | • Teamwork |
| • Organizational Skills | • Critical Thinking |
| • Leadership | • Time Management |

REFERENCES

- References available upon request.