

SHANEL PERERA

Software Engineer | Computer Science Undergraduate

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PROFESSIONAL SUMMARY

Full-stack Software Engineer and Computer Science undergraduate (3rd Year) with hands-on experience spanning the entire software development lifecycle, including interface design, frontend and backend development, APIs, and deployment/DevOps. Built and shipped production web and mobile applications, with practical exposure to Agile development throughout. Designs each product before building it, treating interface design and engineering as one continuous process rather than separate stages. Seeking a Software Engineer role to apply this end-to-end experience on a collaborative team.

TECHNICAL SKILLS

- **Programming Languages:** Python, Java, C, C#, JavaScript, TypeScript, Bash, SQL
- **Frontend Development:** React, Next.js, HTML5, CSS3, Tailwind CSS, Bootstrap, Framer
- **Mobile Development:** React Native, Android Studio
- **Backend Development:** Node.js, Express, Spring Boot, FastAPI, .NET, Flask
- **Database Technologies:** MySQL, PostgreSQL, Redis, SQLite
- **DevOps & Cloud:** AWS, Azure, Docker, Docker Compose, Nginx, GitHub Actions, CI/CD, Vercel, Linux
- **UI/UX & Design:** Figma, Canva, Wireframing, Prototyping
- **Tools & Workspace:** Git, GitHub, Postman, Jira, VS Code, IntelliJ IDEA, PyCharm
- **Concepts:** Object-Oriented Programming, Data Structures & Algorithms, Software Engineering, Distributed Systems, Database Management Systems, Agile Development, Human Computer Interactions(HCI), Networking

EDUCATION

Bachelor of Science (Hons) in Computer Science

Sri Lanka Institute of Information Technology (SLIIT)

July 2024 – 2028

Colombo, Sri Lanka

- **Current Grade:** 3.36 GPA (3rd Year)
- **Awards:** Dean's List (Jul - Dec 2024)
- **Relevant Coursework:** Software Engineering, Distributed Systems, Data Structures & Algorithms, Object-Oriented Analysis & Design, Database Management Systems, Operating Systems, Computer Networks, Intelligent Systems, Parallel Computing, Human Computer Interactions (HCI)

G.C.E. Advanced Level - Physical Science Stream

De Mazenod College

Jan 2009 – 2023

Kandana, Sri Lanka

- Passed with focus on Mathematics, Physics, and Chemistry.
- **Extracurricular:** Member, School Wushu Team (2016 – 2020)

PROFESSIONAL EXPERIENCE

Freelance Full Stack Developer

Self-Employed

2025 – Present

Colombo, Sri Lanka

- Engineered scalable, full-stack web applications and robust databases from the ground up for multiple local businesses while Collaborating directly with clients to translate business requirements into technical specifications and seamless user experiences.

PROFESSIONAL CERTIFICATION

Docker Foundations Professional Certificate (Docker, Inc)

Career Essentials in GitHub Professional Certificate (GitHub)

PROJECTS & TECHNICAL EXPERIENCE

Settle – Fault-Tolerant Distributed Payment Processing System

Technologies: Python, FastAPI, React, TypeScript, PostgreSQL, Redis, ZooKeeper, Docker, Nginx

- Architected a highly available 5-node cluster simulating a resilient e-commerce payment backend.
- Implemented a custom Raft consensus engine to manage leader election and ensure distributed payment servers agree on transaction states.
- Engineered strict data consistency and deduplication using a distributed ledger and idempotency keys to safely process retries across the network.
- Integrated an intelligent Nginx API gateway for load balancing and Stripe webhooks for real-time transaction processing.
- Deployed a comprehensive observability stack (Prometheus, Grafana, Loki, Jaeger) for distributed tracing and real-time cluster health monitoring.

iTrain Studio – Gym Management & Personalized Fitness Platform

Technologies: React, TypeScript, Java, Spring Boot, MySQL, JWT, Docker, Vercel

- Engineered a comprehensive full-stack management platform for a local fitness center to streamline administration and user engagement.
- Developed robust backend architecture to handle user authentication, member registrations, active subscriptions, and personalized workout tracking.
- Optimized internal workflows, empowering gym members to track physical progress digitally and administrators to manage gym operations seamlessly.

VTC-Web – E-Commerce Web Application

Technologies: React, JavaScript, Java, Spring Boot, MySQL, JWT, Nginx, Docker

- Digitalized an established brick-and-mortar retail business (Vidara Trade Center) by developing a scalable, end-to-end e-commerce platform.
- Designed an intuitive UI/UX frontend coupled with an automated backend management system to handle inventory, sales, and customer interactions.
- Successfully expanded the store's customer reach by overcoming geographic limitations and bridging the gap between local retail and digital convenience.

EXTRACURRICULAR & VOLUNTEERING

Graphic Designer

Jul 2025 – Oct 2025

IEEE PES Student Branch of SLIIT

- Served on the Marketing and Design Team for the 'Electroverse' event, creating high-engagement social media assets that aligned with strict IEEE branding guidelines.