

BHANUKA BANDARA EKANAYAKE

+65 87798520 • bhanuka.ekanayake.dev@gmail.com • <https://www.linkedin.com/in/bhanukaekanayake/>
• <https://bhnuka.github.io/bhanuka-be/>

EDUCATION

National University of Singapore (NUS) Bachelor of Computing in Computer Science <ul style="list-style-type: none">Software Engineering Principles and Patterns (CS3219)Software Testing (CS4218)Wireless Networking (CS4222)	Aug 2022 - Jul 2026
NUS College (NUSC) <ul style="list-style-type: none">Quantum Computation (NST2030)Elixir of Life: Manufacturing Cells as Medicine (NST2048)The Digital Lives of Species (NST2058)	Aug 2022 - Jul 2026

TECHNICAL SKILLS

- Programming Languages: Python, Java, JavaScript, TypeScript, C
- Front-end Full-stack: Angular, React
- Back-end Full-stack: Node.js, Express.js
- Database: MongoDB, Redis, CosmosDB, ClickHouse
- Testing: Jest, SonarQube, Playwright, JMeter, Vitest, Pytest
- Python Libraries: FastAPI, Uvicorn, Pydantic, LangChain, boto3
- Miscellaneous: Docker, Spring Boot, Grafana, Keycloak

PROJECTS

Virtual Vault, QA Engineer <ul style="list-style-type: none">Carried out Testing on a full-stack MERN e-commerce project, including but not limited to, unit tests, integration tests, UI tests and performance testing	Jan 2025 - May 2025
SensorTag, Networking Engineer <ul style="list-style-type: none">Programmed a Texas Instruments SensorTag CC2650 that runs on ContikiWorked with embedded systems, real-time sensor data processing and IoT networking	Jan 2025 - May 2025
PeerPrep, Software Developer <ul style="list-style-type: none">Developed a Web Dev application collaborative coding website, complete with a question bank, user page and authentication and a matching service to match users	Aug 2024 - Dec 2024

EXPERIENCE

Robert Bosch (South East Asia), AIoT Software Developer (Internship) <ul style="list-style-type: none">Built and shipped customer-facing Angular and React frontends, integrating with Spring Boot and Python backends; Implemented responsive layouts, role-based authentication and API-driven state management and validated with 100% E2E and Unit testsImplemented Grafana and Infinity dashboards for Keycloak (logins, failures, token flows), using parameterised variables (realm/client/time), data transformations and reusable JSON panel definitions; Produced comprehensive SOPs enabling cross-team reuse and faster RCASet up Playwright E2E across multiple apps and integrated runs into Azure DevOps with Monocart HTML reports and JUnit artifacts; Enabled auto-gated merges in SIT, reduced manual QA and caught regressions earlier, with suites covering 100% of defined user flowsDesigned a natural-language SQL analytics software using LangChain and Bedrock Converse with schema-aware context injection, SQL guardrails and a chart-ability gate to avoid heavy payloads when visuals were not neededTransitioned the natural-language SQL into a multi-modal system and tuned ClickHouse for large queries; Right-sized mark-cache, validated spill settings, set concurrency limits and scoped projections to stabilise memory and latency, reducing query times by 50%Built a multi-pipeline Azure DevOps setup from scratch; Authored reusable templates, configured automatic triggers, ran builds on SL4 agents/Azure, executed tests and published Docker images to Azure registries and AWS LightsailDeployed and operated containerized services on AWS Lightsail, configuring service ports/health checks, environment variables and release workflows to support reliable deployments	Jun 2025 – Dec 2025
--	----------------------------