

Nguyen Son Linh

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WORK EXPERIENCE

Software Engineer, Creative Medtech Solutions

Aug 2023 – Apr 2025

- Built and maintained software features in Qt and C++ for UroMaster, a marquee robotic fusion biopsy system.
- Streamlined the Scrum-based software development lifecycle by creating CI workflows and automating testing processes using GoogleTest.
- Devised a non-intrusive, generic, extensible and customizable logging wrapper for Qt Widgets, fulfilling HSA cybersecurity requirement.
- Enhanced the user preset feature for ultrasound parameters by leveraging SQLite's built-in JSON support, improving extensibility and data management.
- Integrated ultrasound image export via the OpenIGTLink protocol in collaboration with AStar; developed a well-documented Python demo client to support researchers in testing and integration.

Software Engineer Intern, Omron Asia Pacific Pte Ltd

Jan 2022 – Jun 2022

- Worked on Omron's advanced research and development team, created, enhanced and shipped applications employing Omron industrial robots.
- Conceptualized and developed an open-source solution for autonomous mobile robot (AMR) cart alignment using OpenCV-based ArUco marker detection and motion planning. Collaborated with a mechanical engineer to oversee hardware fabrication and assembly. Adopted and improved by a client for factory use.
- Invented a gripper control procedure using proprietary software to substitute for missing adapter in 2 days, enabling a live mobile pick-and-place demo to a delegation from a massive food manufacturer. Client agreed to further production line experiments.
- Programmed and presented a prototype integration of in-house AMR control platform with open-sourced Robot Middleware Framework in 3 weeks. Prepared documentation to streamline development flow for next interns.

SKILLS

Programming Languages: Go, C++, Python, HTML, CSS, JavaScript, Java

Databases: PostgreSQL, SQLite

Cloud Platforms: Heroku, Railway

Methodologies: Agile, Scrum, Iterative, Waterfall

EDUCATION

National University of Singapore

Aug 2019 – Jun 2023

- Bachelor of Computing in Computer Science (Hons)

PROJECTS

gocontainers (<https://github.com/linhns/gocontainers>)

Dec 2024 – Present

- Developed an open-source library of essential data structures in Go, prioritizing readability, maintainability and usability.
- Applied Test-Driven Development (TDD) to design a clean API and ensure reliability through comprehensive unit and integration tests, consistently exceeding 95% code coverage.
- Automated testing and code coverage reporting by constructing a GitHub Actions workflow following Go best practices, publishing results to Codecov on changes.

Snippetbox, Sole Developer (<https://snippetbox.up.railway.app>)

Sep 2024 – Dec 2024

- Developed and tested an application for saving and viewing text snippets with built-in user authentication using Go, PostgreSQL with basic HTML and CSS.
- Constructed a CI/CD workflow to automate code linting, vulnerability checking, testing and deployment to Railway, reducing test duration by 15% by using faster runners.