William Arvin Fisilo

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Education

Hong Kong University of Science and Technology - Grade: 3.4 / 4.3 — Aug 2021 – June 2025

Bachelors in Integrative Systems and Design (Computer Science focus) and Extended in Artificial Intelligence — *Kowloon, HK*

Work Experience

Efinix — Feb 2025 – April 2025

Part-Time Software Engineer — *New Territories, HK*

- Developing a Flutter app using MVC architecture, Dart, and implementing UI, backend with a CI/CD pipeline.

Software Engineer — June 2024 – Aug 2024

- Revamped the codebase for the in-house coding editor (Primus) through extensive testing of Node.js and RestAPI, along with research into the VS Code codebase, achieving a 50% boost in inter-process communication efficiency.
- Engineered a Python-based communication framework utilizing ZMQ, PyEE, and Threads, decreasing backend-frontend latency from 0.2 seconds to 0.05 seconds, which improved user experience across the coding editor.

Alpha AI Technology — June 2023 – Aug 2023

Software Engineer — *Hong Kong Island, HK*

- Designed and built the backend of an ERP system using Node.js and PostgreSQL, creating a web application that reduced development time by over 75% for a SaaS platform template builder serving more than 20 clients.
- Spearheaded and deployed a Java-based object detection app for dash cameras, leveraging AWS compute units, EMR with Apache Hadoop, and S3 for real-time video uploads every 10 minutes, serving 30+ users.

Undergraduate Research Opportunities Program || Professor BRAUD, Tristan Camille — Feb 2023 – May 2023

Software Engineer – Assistive technology for the visually impaired with CEO of SEEKR, Turzo Bose — *Kowloon, HK*

- Designed SEEKR software for 3D reconstruction, utilizing LiDAR technology, OpenCV, and C++ to assist 20+ HK Blind Union members, incorporating findings from research papers.

Personal Projects

InnoNautics - Marine Transport Automation — Aug 2023 – Present

Founder and Software Engineer

- Developed a scalable marine automation system using C++, MOOS-IvP, and Docker on a Raspberry Pi Linux environment, deploying it across 10 prototypes to prepare for manufacturing.
- Engineered an autonomous pathfinding system using C++, MAVLink, and ROS, integrating GPS/IMU data to enable real-time navigation with manual override, reducing manual control reliance by 40% in transport automation.
- Led a 4-person team to develop a winning prototype, securing HKSTP Ideation approval by leveraging Slack, GitHub, and feedback from Prof. Ajay Joneja.

InSight - Bringing education and work opportunities to the visually impaired — Sep 2022 – Feb 2024

Lead Software Engineer

- Achieved 1st place (Best Product) in the InnoX competition, winning 60,000 HKD from the Chan Dang Foundation.
- Innovated painting-to-tactile dot conversion software for the visually impaired with 99% efficiency and enhanced dashcam integration, achieving 94% accuracy and 10% efficiency boost using Python and OpenCV.

Volunteer Experience

Robomasters HKUST Enterprize team

Senior Mechanical Engineer

- Led hardware/software integration for a self-balancing infantry robot, collaborating with 3 teams (mechanical, electrical, and firmware) to successfully qualify for the RoboMaster 2023 University Championship.

Udemy Certification

The Complete 2024 Web Development Bootcamp

- Built 16+ web projects showcasing expertise in HTML, CSS, JavaScript, Node.js, React, PostgreSQL, and Web3.

Technical Skills

Programming Languages: *(Proficient) Python, C/C++, Java, HTML/CSS, JavaScript, (Familiar) SQL*

Technologies/Frameworks: *(Proficient) Git, Linux, REST APIs, SSH, OpenCV, ZMQ, AWS, Docker, React*