Ernest Malonda

Erm7@sfu.ca • (672) 855-7890 • Burnaby, British Columbia
linkedin.com/in/ernest-malonda

TECHNICAL AND SOFT SKILLS

- **Programming:** Python, C++, MATLAB | **Software & Tools:** SolidWorks, Siemens NX, Microsoft Suite
- **Hardware:** 3D Printer, Oscilloscope, Multimeter, Soldering, basic electronics tools
- **Languages:** English (Native), Indonesian (Native), Mandarin (HSK 3), German (A2)
- **Certifications:** Siemens Certified Mechatronics Systems Assistant (Level 1), WHMIS 2015 v2.0

TECHNICAL PROJECTS

Mechanical Wristwatch Movement Digital Twin (SolidWorks)
- Recreated the internal movement of a mechanical wristwatch with accurate constraints and tolerances.

Autonomous Maze-Solving Robot (LEGO NXT 3.0, C)
- Implemented PID-controlled navigation and fastest-path return logic, integrated sensors and motors.

Line-Following Robot (LEGO NXT 3.0, Python)
- Developed real-time line tracking and tuned control parameters for speed and accuracy.

Material Selection for Aircraft Turbine Components (Granta Edupack)
- Selected materials based on thermal, mechanical, and wear constraints using performance indices.

Load Analysis on an Airplane Landing Gear
- Conducted shear, bending, and dynamic load analysis on an aircraft landing gear mechanism using kinematic methods to identify critical stress and reaction force conditions

WORK EXPERIENCE

Private Math Tutor   **September 2024 – Present**
Self-employed, Hybrid   Vancouver, British Columbia
- Delivered personalized one-on-one tutoring in math, resulting in measurable grade improvements.

Concession Stand Cashier – Food Handler   **December 2023 – Present**
Sodexo Live, BC Place   Vancouver, British Columbia
- Served 400-500 customers per shift during high-volume stadium events.
- Managed and planned inventory according to in/out flow of items during peak operation.

IT Support Intern   **April 2023 – August 2023**
Opsigo   Jakarta, Indonesia
- Supported administrative operations and improved file management efficiency.
- Learned and applied B2B customer service practices.

Founder and Lead Technician   **March 2020 – May 2023**
Pcsolutions Jakarta   Jakarta, Indonesia
- Built 25+ artisan PCs tailored to client performance requirements and budgets.
- Repaired laptops/desktops and diagnosed hardware/software issues accurately.

EDUCATION

Simon Fraser University   **Ongoing**
B.Sc, Mechatronics Engineering   Surrey, British Columbia