TUMI FABIYI

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SKILLS

Programming & Data: Python, C++, Java, C, MATLAB, SQL, TypeScript, JavaScript, NumPy, Pandas, PyTorch, scikit-learn, Matplotlib, JUnit
Robotics & Systems: ROS, Embedded C++, FreeRTOS, Git, Linux, Node.js, Angular
Hardware & Design: PCB Design (KiCad, Altium), CAD (Fusion 360, Onshape), Rapid Prototyping, Soldering, Signal Analysis
Tools & Cloud: Power BI, AWS, Azure, Kubernetes

EXPERIENCE

InSporos (Ag-Tech Startup)   Jan. 2025 – April 2025
Research and Development Intern   *Vancouver, AB*
- Boosted system performance by developing **computer vision** tools and resolving bugs in the **Python and C++** codebase, leading to more reliable **model predictions** and smoother operation for technicians.
- Reduced mechanical vibrations by **30%** through CAD-based structural redesign and hands-on fabrication using precision **machining tools**, enhancing data quality and hardware longevity.
- Engineered a standardized **greenhouse imaging system** to improve machine learning input consistency; designed and **3D-printed** custom parts (**Fusion 360**), produced PCB schematics (**KiCad**), integrated **sensors/LED arrays**, and programmed control logic in **C++**.
- Engineered a standardized **greenhouse imaging system** by integrating **custom PCBs** (**KiCad**), 3D-printed components **(Fusion 360)**, sensors, and LEDs, and programmed embedded control logic in **C++** to improve ML input quality.

Amazon   Jun. 2024 – Sept. 2024
Software Development Engineer Intern   *Vancouver, BC*
- Optimized internal product validation pipelines using **Java** and **Python**, reducing manual overhead by an estimated **800 hours annually**.
- Led a cross-functional initiative addressing an incident impacting **300K customers** and causing **$11M** in losses, by applying **unit and regression testing**, extensive **code validation**, and **Agile project management** to deliver a successful resolution.
- Collaborated with engineers and stakeholders through code reviews, technical documentation, and presentations to ensure high-quality production launches.

EHS Analytics (Health-tech Startup)   Jun. 2023 – Sept. 2023
Data Science and Software Engineering Intern   *Calgary, AB*
- Processed and labeled **1,000+ incident and environmental reports** using **Pandas** and **NumPy**, preparing high-quality datasets for AI model training and improving labeling accuracy.
- Developed **5 Power BI dashboards** with **SQL** and **Pandas** for client presentations and internal strategy, enabling data-driven decision-making. Ensured **data privacy** by anonymizing sensitive client data with **Scrubadub**.
- Refactored and optimized an **AngularJS** frontend codebase, reducing load times by **10%** and improving maintainability. Built scalable **TypeScript** microservices for **data ingestion**, enhancing backend reliability and performance.

LEADERSHIP AND PROJECTS

Women in Data Science   Sep 2023 – Present
VP External   *Vancouver, BC*
- Promoted to **VP External**, leading a team of **4 executives** to drive outreach initiatives that increased event engagement and participation by **15%**. Built strategic partnerships with companies including **Microsoft**, **SAP**, and **Lululemon** to connect student talent with industry leaders.
- Orchestrated outreach for **15 high-scale events** including technical panels, case competitions, hackathons and a technical career fair in collaboration with industry professionals, empowering over **2000 women** in UBC's tech community to advance their careers.

Autonomous Pet Rescue Robot Project   Aug 2025
Team President   *Vancouver, BC*
- Designed and manufactured a **fully autonomous rescue robot** integrating **LIDAR navigation**, **Hall-effect sensors**, and embedded control systems, achieving a **top-3 ranking out of 16 teams**.
- Engineered a custom **Altium PCB** for pet detection, prototyped lift mechanisms and structural components in **Onshape**, and optimized embedded logic in **C++**, improving detection reliability and actuation speed.
- Developed a lightweight sensor logging system using **Node.js** and **JavaScript** and multicore programming, enabling real-time debugging and performance optimization.

EDUCATION

University of British Columbia   Vancouver, BC
Bachelors of Applied Science, Engineering Physics - Software and Mechatronics Spec.   *Expected Graduation Date: May 2028*
Awards and Recognitions: Loran Scholar, Amazon Future Engineer, Ted Rogers Future Leader Award, Onyx Scholar
Clubs and Affiliations: Ethos Lab, ColorStack, UBC Women in Data Science, Girls Who Code, NSBE, UBC AAI, Engineering Undergraduate Society