ARFAA MUMTAZ

780-934-8623 | arfaamumtaz@hotmail.com | Edmonton, AB | linkedin.com/in/arfaamumtaz/

QUALIFICATION SUMMARY

Versatile Computer Science professional (BSc, Minor in Accounting) combining technical expertise in **Systems and Information Security** with a proven track record in **operations leadership**. Experienced in delivering high-stakes solutions, including professional **cybersecurity audits** for legal organizations and **full-stack IoT development** for autonomous robotics in the context of **precision agriculture** – specifically engineering systems that integrate **drone telemetry** with real-time field data to optimize crop management. Complemented by a background in **supervising** teams of **8-10+ employees**, consistently driving **revenue growth of 10-15%** and boosting operational efficiency through strategic process optimization. A strategic problem-solver adept at bridging the gap between complex software architecture and **data-driven** business decisions.

PROFESSIONAL EXPERIENCE

RETAIL SALES SUPERVISOR | Jan 2025 – Present
Vapour Choice, 15738 100 Ave NW, Edmonton, AB, T5P 0L1 (Permanent Full-Time)

- Managing a team of **8+ employees**, fostering a culture of accountability, and delegating daily responsibilities to maintain a high-performance retail environment.
- Optimizing store operations by overseeing inventory logistics, point-of-sale systems, and workflow efficiency, contributing to a **10–15% increase** in monthly revenue.
- Leading staff onboarding and technical training initiatives to ensure consistent product knowledge and high-quality customer service standards.
- Collaborating with upper management to direct **inventory forecasting** and **refine sales strategies**, ensuring all store activities align with broader **financial targets**.

RESEARCH ASSISTANT | March 2025 – June 2025
MacEwan University, 10070 104 Ave NW, Edmonton, AB, T5H 2Z8 (Contract)

- Served as the **lead developer and designer** for an autonomous soil-sampling drone project, architecting the system from initial concept to a **functional proof-of-concept prototype**.
- Collaborated with **interdisciplinary teams**, including project supervisors and chemistry department faculty, to integrate specialized soil-analysis indicators into a modular, drone-mounted sampling mechanism.
- Designed and **3D-modeled custom hardware components** (such as robotic arms and sample-processing units) to ensure mechanical compatibility and structural integrity for aerial field operations.
- Orchestrated the development lifecycle by integrating **Raspberry Pi** companion computing with **MAVLink flight telemetry**, bridging the gap between autonomous hardware control and complex agricultural data collection.
- Utilized a various set of **programming languages** and **industry standard technologies** (including, but not limited to **Python, C#, C++, Bash Scripts, Figma, SQL**, etc) to achieve the anticipated results, highlighting my adaptability and to learn and use complex software/hardware tools on short notice.

SECURITY SYSTEMS ANALYST INTERN | September 2024 – January 2025
Alternative Legal Services Firm Inc, 10611 98 Ave NW, Edmonton, AB, T5K 2P7 (Contract/Internship)

- Audited organizational security by conducting a comprehensive discovery of **network architecture**, **physical hardware**, and **Microsoft 365** environments to identify and remediate systemic vulnerabilities.
- Implemented a "Security by Design" framework by establishing privileged access management through dedicated admin accounts, enforcing Google Workspace **2-factor authentication**, and migrating email domains to ensure secure communication.
- Strengthened **endpoint security** by configuring Windows Defender, disabling insecure remote access and telemetry services, and deploying BitLocker and Bitwarden to enforce **full-disk encryption** and secure password management.
- Standardized operational security procedures by documenting an **incident response plan** and developing technical how-to guides for printer security, file password protection, and digital document signing to educate and support staff.

EDUCATION & CERTIFICATIONS

Bachelor of Science, Major: Computer Science, Systems and Information Security, Minor: Accounting
MacEwan University, 10700 104 Ave NW, Edmonton, AB, T5H 2Z8
Graduation Term: June 2025
Highlights:
- CGPA for final 30 credits (max 4.00): **3.52**
- Presented research for **Student Research Day** at MacEwan University to **significantly increase investment** interest in my supervised project under the Computer Science department.
- Participated in **Cyber Skyline's National Cyber League** representing MacEwan University and gained the following standings:
  - Individual Comp: **199th** out of **8,484** competitors (**top 2%**)
  - Team Comp: **72nd** out of **4,893** teams (**top 1%**)

Projects:
- **Agrilo – Agricultural IoT Framework**
  - Developed 'Agrilo,' an end-to-end IoT platform modernizing agronomic testing for the agricultural community. By bridging the gap between hardware sensing kits and mobile software, the system replaces slow, costly lab processes with **real-time**, **data-driven** soil and water analysis. The platform leverages **AI and predictive modeling** to provide geolocated farming insights, helping producers optimize crop management and **reduce operational costs.** Built with a 'Security by Design' approach, the project integrates **robust encryption** and **secure data handling** to ensure user privacy and **data integrity** in a professional, high-impact framework.
- **UAV Based Automated Agronomic Sampling System**
  - Designed and engineered a proof-of-concept autonomous drone platform to automate soil sampling, aiming to reduce the manual labor and inefficiencies by targeting a critical gap in precision agriculture. The system integrated a Holybro X650 development kit with a **Pixhawk 6C** flight controller and a **Raspberry Pi 4B** companion computer, utilizing custom scripts and **MAVLink telemetry** for precise flight navigation and automated data collection. The project involved a full hardware development lifecycle, including **3D-modeling** custom modular components (such as a robotic arm and sample processing units) alongside rigorous **integration testing**. This build established a functional technical foundation for future **aerial robotics**, demonstrating an ability to bridge mechanical design with **autonomous system integration** to solve real-world agricultural challenges.

REFERENCES

Chris Buhl (Manager/Owner at Vapour Choice)
Phone: 780-860-6615
Joe Francois Mpunga (Former supervisor at a previous role)
Phone: 825-343-3076
Dr. Mohammed Elmorsy (Project Supervisor at MacEwan University)
Email: elmorsym@macewan.ca
Dr. Calin Anton (Professor at MacEwan University)
Email: antonc@macewan.ca

More references available upon request.