# LUCAS M.K. MAYALL

(604) 368-4320 | lucasmmayall@gmail.com | lmkm.ca | github.com/Zerva5

## EDUCATION

**BSc. Combined Major in Computer Science and Statistics** — Victoria, BC
*University of Victoria* — *September 2019 – April 2023*

## TECHNICAL SKILLS

**Languages**: Python, C#, SQL, JavaScript, TypeScript, C, Java, R, Lua, Bash, HTML, CSS
**Frameworks/Libraries**: .NET, Tensorflow, ReactJS, NodeJS, Express, NextJS, Tailwind CSS
**Developer Tools**: Git, Github Actions, Docker, Azure DevOps, MS SQL Server, Visual Studio, VS Code, Vim
**Other Skills**: Business Management, Linux System Administration, Product Photography
**Hobbies**: Rock Climbing, Hiking, Camping, Woodworking, 3D-Printing, Home Lab

## EXPERIENCE

**Junior C# .NET Developer** — September 2022 – Present
*Department of National Defence (Canada)* — *Esquimalt, BC*
- Developed and maintained an IT asset management application using C# .NET and Windows Forms.
- Constructed and launched robust Forms and User Controls, effectively meeting all feature requirements.
- Revitalized legacy code by applying object-oriented paradigms, improving code maintainability.
- Executed code reviews, documented findings, and communicated actionable feedback to lead developers.
- Authored and fine-tuned stored procedures, optimizing data retrieval and manipulation processes.
- Operated in a 100% remote environment, demonstrating strong self-management and autonomy.

**IT Technician Co-op** — April 2022 – September 2022
*Department of National Defence (Canada)* — *Esquimalt, BC*
- Achieved Federal Reliability security status
- Developed strong relationships with clients while identifying and resolving technical issues.
- Triaged and resolved inter-departmental roadblocks resulting in the revival of multiple stalled projects.
- Identified an opportunity to streamline and automate an asset management task with a decade-long backlog.
- Rapidly developed a prototype PDF automation JavaScript web application to automate this task.

**E-commerce Business Owner** — March 2020 – December 2021
*Self Employed - LMKM Co* — *Victoria, BC*
- Established and grew profitable e-commerce management business, driving over $1.7M in sales within two years.
- Management responsibilities included listing optimization, customer support, strategic advertising, and pricing.
- Achieved market dominance by securing the top 3 category best-seller spots simultaneously on Amazon Canada.

## PERSONAL PROJECTS

**Git Commit Classification Machine Learning Model** | *Python, Tensorflow, Docker, Git* — April 2023
github.com/Zerva5/474CommitML
- Worked in a group of 6 to develop a Git commit classification Machine Learning model.
- Co-wrote a 25 page academic paper detailing the project and results.
- Used Python to injest, pre-process, analyze, and vectorize code changes in over 360k Java commits.
- Reduced processing time by 90% by implementing multiprocessing and caching.
- Halved training time by creating custom Docker containers for distributed training on multiple systems.
- Implemented techniques from current literature in code difference vectorization, pre-training through unsupervised learning, and attention based neural networks.

**Team Lead: P2P Chat Application with End-To-End Encryption** | *Python, Git* — December 2022
github.com/Zerva5/SENG360SM
- Architected the application, ensuring robust compliance with stringent encryption requirements.
- Spearheaded team meetings to gauge milestone progression and pinpoint areas requiring additional support.
- Steered responsibility for overall architecture, P2P networking, user interaction, and the creation of a video demo.
- Employed Python threading to facilitate a simultanious client/server design, enhancing real-time communication.
- Successfully delivered the project within the stipulated timeline, fulfilling all security and design specifications.