Lucas M.K. Mayall

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EDUCATION

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

TECHNICAL SKILLS

Languages: Python, C#, SQL, TypeScript, C, Java, R, Lua, Bash
Frameworks/Libraries: Tensorflow, React, .NET
Developer Tools: Git/Github, Docker, Azure DevOps, MS SQL Server, Visual Studio Enterprise, VS Code, Emacs, Vim
Other Skills: 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*
- Worked on a bespoke, data-driven, Windows Forms based, asset management application.
- Designed and implemented front end logic for required features.
- Refactored legacy code to implement modern object oriented paradigms.
- Performed Code Reviews; documenting findings and reporting to lead developers.
- Write, modified, and optimized stored procedures to ensure efficient data retrieval and manipulation.
- Worked remotely in a self-directed manner.

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 JavaScript web application to automate PDF form filling to automate this task.

E-commerce Business Owner March 2020 – December 2021
Self Employed - LMKM Co *Victoria, BC*
- Founded and managed a successful Amazon e-commerce management business.
- Generated $1.7M in sales over two years.
- Responsibilities included: listing optimization, customer support, advertising, pricing strategy, and administration.
- Simultaneously achieved #1, #2, and #3 best seller spots in the "motorcycle helmet" category 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 an academic paper detailing the project and results.
- Used Python to injest, pre-process, analyze, and vectorize code changes in over 360k Java commits.
- Created and deployed 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
- Designed application architecture and ensured compliance with security requirements.
- Led team meetings to assess milestone progress and identify where help was needed.
- Personally responsible for overall architecture, P2P networking, user interaction, and creating a video demo.
- Used Python threading to allow for a concurrent client/server design.
- Project was completed on time and met all security and design requirements.