

Hamish Burke

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github.com/Slaymish

Professional Summary

Cybersecurity-focused Computer Science graduate student with expertise in programming, system security, and machine learning. Recognized on the Dean's List with proven experience in developing full-stack applications, conducting security research, and implementing ML models. Seeking opportunities to leverage technical skills in a challenging cybersecurity or software development role.

Education

Master of Computer Science

Victoria University of Wellington, New Zealand

Expected April 2026

Bachelor of Science, Computer Science

Victoria University of Wellington, New Zealand

2022-2024

- Specialisation: Cybersecurity
- Academic Achievements: Dean's List (2022, 2024); 8.11 GPA (2024)
- Scholarships: Wellington Tangiwai Scholarship (2022)
- Coursework: Cryptography, Network Security, Machine Learning, Software Engineering

NCEA Level 3 (Merit Endorsement)

Tauranga Boys College

2017-2021

- University Coursework: A+ in COMPX101, Waikato University (2021)

Technical Skills

- **Programming:** Java, C++, Python, JavaScript
- **Web Development:** HTML/CSS, VueJS, NuxtJS
- **Cloud & DevOps:** AWS, Docker, Git, Git LFS
- **Cybersecurity:** Malware Analysis, Cryptography, Network Security
- **Machine Learning:** PyTorch, LightGBM, Adversarial ML
- **3D Graphics:** Blender, OpenGL, Procedural Generation
- **Game Development:** Unreal Engine, Godot
- **UI/UX:** ImGui, Material Design, Responsive Design

Research Experience

Data Poisoning Attacks on Malware Detection ML Models

Victoria University of Wellington — Independent Researcher

Nov 2024 - Feb 2025

- Conducted research on adversarial machine learning in cybersecurity; developed techniques for perturbing PE file binaries while preserving malware functionality
- Implemented and evaluated multiple attack vectors against malware detection systems
- Created containerised testing environments using Docker for reproducible experiments
- **Technologies:** PyTorch, LightGBM, Docker, Python, PE File Analysis, LaTeX
- github.com/Slaymish/malware-classifier-backdoors

Professional Experience

Computer Science Tutor

Victoria University of Wellington

Jul 2023 - Present

- Lead programming labs for 20+ students, providing hands-on guidance in Java and object-oriented programming
- Evaluate assignments, provide detailed feedback, and develop supplementary learning materials
- Maintain regular office hours to provide individualised support for struggling students

IT Installation Technician

HQ Limited

Jan 2024 - Apr 2024

- Executed a time-sensitive office relocation project, ensuring minimal disruption to business operations
- Systematically dismantled, transported, and reassembled 50+ computer workstations and peripheral equipment
- Verified network connectivity and documented hardware configurations for future maintenance

Customer Service Representative

Noel Leeming

Dec 2022 - Feb 2023

- Provided expert product knowledge on consumer electronics to diverse clientele
- Processed transactions, maintained accurate inventory records, and optimized product displays

Software Projects

LLM Assistant

Personal Project — Lead Developer

Apr 2023 - Oct 2023

- Engineered a Java-based conversational AI assistant leveraging the OpenAI API
- Implemented a modular architecture with loose coupling for extensibility and maintainability
- **Technologies:** Java, OpenAI API, REST, JSON
- github.com/Slaymish/Java-GPT-Assistant

Wedding Event Platform

Personal Project — Full-Stack Developer

Mar 2023 - Jun 2023

- Developed a responsive event management website with RSVP functionality and guest management
- Implemented secure authentication, form validation, and cloud-based image storage
- **Technologies:** VueJS, Firebase, Authentication, Cloud Storage

2D Platformer Game

Team Project — Technical Lead

Sep 2022 - Dec 2022

- Led development of a physics-based platformer game with procedurally generated levels
- Implemented core game mechanics and managed version control workflow for a team of 4
- **Technologies:** Godot Engine, GDScript, Git LFS

Additional Projects

- **Machine Learning Classifier (COMP307):** Implemented and evaluated KNN and Decision Tree algorithms for pattern recognition tasks. GitHub
- **Finance App UI Design (SWEN303):** Created wireframes and interactive prototypes for a personal finance management application following Material Design principles. Hi-Fi Prototype

Professional Interests & References

Professional Interests

- **Cybersecurity:** Malware analysis, reverse engineering
- **3D Graphics:** Procedural generation, shader programming
- **Machine Learning:** Adversarial attacks, model security
- **Robotics:** Embedded systems, sensor integration

References

- **Dr. Ghassem Narimani** — Course Coordinator, School of Engineering and Computer Science — Victoria University of Wellington — *Contact details available upon request*
- **Vijyeta Rattan** — Store Manager — Noel Leeming — *Contact details available upon request*