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Colin Knapp

Full Portfolio

Location: Kitchener-Waterloo, Ontario, Canada **Contact:** Contact via MotherboardRepair.ca

Note: MotherboardRepair.ca offers a wide range of services and is currently my main focus. Please use the contact form there for all inquiries.

Highlights & Measurables

- Cybersecurity Leadership: Currently spearheading <u>ViperWire.ca</u>, the public-facing arm of my Al-powered cybersecurity and development consultancy, delivering cutting-edge protection for digital assets (2023-Present).
- Open-Source Impact: Co-created <u>FastAsyncWorldEdit</u> and <u>PlotSquared</u>, revolutionizing Minecraft development by enabling massive transformative edits
 —scaling from 50,000 server-crashing edits to billions without interruption—powering a \$2 billion game brand with global contributor support (2014-Present).
- Team Leadership: Managed a distributed team of 45 personnel at <u>Nitric</u>
 <u>Concepts</u>, fostering collaboration and deploying advanced DevSecOps practices (2018-2021).
- On-Premises Innovation: Architected self-managed, bare-metal infrastructure
 with orchestration for on-premises deployments, delivering performant, scalable
 systems compliant with WCAG 2.0 AA. Developed custom Docker solutions
 leveraging Docker Swarm and cluster management tools like Salt Stack, Bash,

- and Python, working with web hosting tools and DNS infrastructure to meet stringent government accessibility and compliance goals (2020-Present).
- Government Projects: Delivered scalable, secure learning management systems
 for the US government and consulted on <u>Flint Bishop International Airport</u>'s
 website and domain infrastructure via Addis Enterprises, building a
 geographically redundant DNS cluster with an A+ standard resilient to extreme
 scenarios (2019-Present).
- Healthcare Infrastructure: Developed and deployed infrastructure for <u>Improving MI Practices</u>, a critical healthcare education platform, ensuring high availability and security for sensitive medical training content (2023-Present).
- Security Automation: Created a Docker-based utility for automated WordPress
 malware removal and hardening, successfully deployed to protect <u>MLPP</u> from
 persistent cyber attacks, reducing infection frequency from daily to zero (2023).

Employment

DevSecOps Consultant

Addis Enterprises

2019-Present

Leading infrastructure and security projects for government and healthcare clients, specializing in scalable systems, compliance, and domain resilience.

- Delivered WCAG 2.0 AA compliant learning management systems for US government clients
- Architected geographically redundant DNS infrastructure for Bishop Airport (bishopairport.org)
- Developed automated malware eradication tools for healthcare platforms
- Implemented CIS Level 1 and 2 security standards across multiple client environments

Chief of Operations / VP / Co-Founder

Nitric Concepts

2018-2021

Bootstrapped and led all operational aspects of a global gaming technology company, managing software development, talent acquisition, and providing executive mentorship to drive significant business growth.

- Bootstrapped company from zero to an estimated \$4M gross revenue with strong profit margins
- Managed software development and talent acquisition for 45+ contractors across multiple timezones
- Utilized revolutionary open source tooling developed with Athion to produce
 Nitric Concepts products
- Co-developed FastAsyncWorldEdit and PlotSquared, birthing a sustainable 10year open source brand that continues today with paid maintainers
- Established Jenkins CI/CD infrastructure in 2013 that continues running the open source ecosystem
- Implemented DevSecOps practices using Docker, Fail2Ban, and Salt Stack for high-traffic gaming environments
- Utilized Kanban/Trello to coordinate distributed teams and project workflows
- Provided executive mentorship to CEO/Founder Andrew Karvelis, helping scale from side project earnings to significant revenue growth
- Established CI/CD pipelines and security practices for enterprise-scale gaming infrastructure

Founder

ViperWire.ca

2023-Present

Building an Al-powered cybersecurity consultancy focused on making enterprisegrade security accessible to small to medium businesses.

• Developing Al-augmented security analysis systems

- Creating scalable security solutions for SMBs
- Establishing cybersecurity consulting framework

Co-Founder

MotherboardRepair.ca

2019-Present

Co-founded a company focused on reducing e-waste through circuit board repairs and sustainable tech solutions.

- Leveraged industry expertise for sustainable electronics solutions
- Established repair processes for high-value circuit board components
- Promoted environmental responsibility in electronics industry

Project Experience

Bishop Airport DNS Infrastructure

Timeframe: 2019-Present

Overview: Collaborated on US government projects and Bishop Airport (bishopairport.org) infrastructure via Addis Enterprises, focusing on scalable, secure systems and domain resilience.

Key Contributions:

- Partnered with senior professionals to deliver learning management systems meeting WCAG 2.0 AA compliance for government clients.
- Consulted for Bishop Airport, architecting a geographically redundant DNS cluster achieving an A+ standard, capable of withstanding extreme disruptions.
- Provided exceptional client service through effective communication and tailored solutions.

Impact: Strengthened government digital infrastructure and ensured robust, resilient airport domain systems.

Read more about the Airport DNS project → →

Improving MI Practices Healthcare Platform

Timeframe: 2019-Present

Overview: Led infrastructure design and operations for <u>Improving MI Practices</u> through Addis Enterprises, a critical healthcare education platform.

Key Contributions:

- Designed and implemented secure, scalable infrastructure for healthcare education content delivery.
- Administered CIS Level 1 and 2 security standards implementation for enhanced system hardening and security controls.
- Implemented automated deployment pipelines and monitoring systems for high availability.

Impact: Enabled reliable delivery of critical healthcare training content to medical professionals while maintaining robust security standards.

Read more about the Healthcare Platform project → →

MLPP WordPress Malware Eradication

Timeframe: 2023

Overview: Tasked by Addis Enterprises to develop an automated solution for WordPress malware removal and hardening to stop a malignant and ongoing infection.

Key Contributions:

- Created a Docker-based utility for automated malware detection and removal.
- Implemented hardening measures to prevent reinfection.
- Successfully deployed to protect MLPP from persistent cyber attacks.

Impact: Reduced infection frequency from daily/weekly to zero, significantly improving site security and reliability.

Read more about the WordPress Security project → →

YouTube Game Development & Cybersecurity

Timeframe: 2011-2022

Overview: Developed custom Minecraft-based games for major YouTube celebrities and Multi-Creator Networks (MCNs), including partnerships with Jordan Matthewson (Kootra) and TheCreatures MCN with 15 million subscriber reach.

Key Contributions:

- Designed and developed custom Minecraft games to deliver engaging content for prominent YouTube creators and livestreams.
- Partnered with Jordan Matthewson (Kootra) and TheCreatures MCN, providing gaming experiences for their 15 million subscriber network.
- Collaborated with minor to major names in the YouTube community, including creators with massive followings during the platform's golden era.
- Implemented DDoS defense, anti-phishing protocols, and data privacy measures for high-profile content and livestreams.
- Managed hardware/software lifecycles and created comprehensive documentation for celebrity partnerships and MCN collaborations.

Impact: Delivered secure, seamless gaming experiences to millions of viewers through celebrity partnerships, MCN collaborations, and engaging content creation for livestreams. A critical incident where Jordan Matthewson was "swatted" during a live stream with 15,000 viewers on Twitch.tv became a pivotal moment that accelerated my focus on cybersecurity, ultimately leading to AddisEnterprises and partnerships with various US government organizations.

Read more about YouTube Game Development → →

Web Design & Java Plugin Development

Timeframe: 2011-2023

Overview: Developed web solutions and Java plugins focusing on CI/CD efficiency and client satisfaction, using strategic networking in IRC communities to bootstrap early career opportunities.

Key Contributions:

- Idled in IRC chat rooms of various plugin and software developers to assess reliable open source projects for early career dependencies.
- Offered CI/CD services and Java Maven repository hosting to open source developers, building goodwill and reciprocal support networks.
- Utilized Jenkins and GitLab CI/CD for streamlined workflows, leveraging a robust toolchain for rapid development.
- Managed complex systems and ensured WCAG 2.0 AA accessibility standards.
- Provided technical guidance and detailed client documentation, drawing on broad experience to resolve diverse issues.

Impact: Enhanced project delivery speed and quality for diverse computing environments through prolific and efficient development practices, while strategically building support networks in the open source community.

Read more about Web Design & Java Plugin Development → →

Ad Marketing Link Tracking Tool

Timeframe: 2013-2018

Overview: Developed an unbranded ad marketing link tracking tool for YouTubers to manage ad read campaigns, enabling creators to release ad campaigns and receive payments directly.

Key Contributions:

- Built a comprehensive ad campaign management system for content creators to track and monetize ad reads.
- Designed user-friendly tools for real-time revenue monitoring and campaign performance tracking.
- Implemented secure payment processing and data handling for creator monetization.

 Created an unbranded solution that could be white-labeled for various influencer networks.

Impact: Developed a complete ad campaign management platform that would have empowered creators to maximize earnings through direct ad read monetization, though the project was shelved due to client changes.

Read more about the Ad Marketing Link Tracking Tool $\rightarrow \rightarrow$

DevOps & Co-Founder at Nitric Concepts

Timeframe: 2018-2021

Overview: Co-founded and mentored Andrew Karvelis in building Nitric Concepts from a side project to a \$4M gross revenue company, providing executive mentorship and operational leadership.

Key Contributions:

- Provided executive mentorship to CEO/Founder Andrew Karvelis, helping scale from side project earnings to significant revenue growth.
- Managed 45 contractors worldwide, implementing Docker, Fail2Ban, and Salt Stack as part of a comprehensive toolchain.
- Co-developed <u>FastAsyncWorldEdit</u> and <u>PlotSquared</u>, enabling billions of seamless edits for Minecraft creators.
- Bootstrapped the company from zero to an estimated \$4M gross revenue with strong profit margins.
- Utilized Kanban/Trello to coordinate distributed teams and project workflows across multiple timezones.

Impact: Transformed Nitric Concepts into a thriving multinational entity through prolific and efficient development, while mentoring Andrew Karvelis from side project earnings to significant revenue growth and financial success.

Read more about my leadership at Nitric Concepts → →

Entrepreneurial Ventures

Athion.net Turnaround

Timeframe: 2013-2017

Overview: Revitalized a struggling business into a self-sustaining operation in two weeks, developing revolutionary open source tooling with Athion to produce Nitric Concepts products.

Key Contributions: Optimized systems and streamlined operations with rapid, effective solutions, creating innovative tooling that would later power major open source projects.

Impact: Created a profitable, independent venture while developing foundational technology that would enable future open source success.

Read more about the Athion.net Turnaround → →

MotherboardRepair.ca

Timeframe: 2019-Present

Overview: Co-founded a company reducing e-waste through circuit board repairs. **Key Contributions:** Leveraged industry expertise and a versatile toolchain for sustainable tech solutions.

Impact: Promoted environmental responsibility in electronics.

Read more about MotherboardRepair.ca → →

Additional Information

Personal Development

Timeframe: 2011-Present

- **Self-Taught Mastery:** Continuously honed cybersecurity and systems management skills, building a broad knowledge base to tackle unique challenges with a passion for innovation and problem-solving.
- **Open-Source Contributions:** Actively maintain smaller self-run open-source projects; previously led *OhMyForm* (sunset project now fully retired in favor of

<u>Formbricks</u>), an open source alternative to Google Forms and Office 365 that enabled data sovereignty and privacy-focused form building, and contributed to <u>PlotSquared</u>, <u>FastAsyncWorldEdit</u>, and <u>PlotHider</u>, reflecting a prolific commitment to advancing technology.

• **Skill Maintenance:** Regularly run Woodpecker CI and Gitea for on-premise source management, testing, and deployment, employing security scanning and unit testing to ensure core functionality and security baselines, alongside self-hosting exercises to sustain rapid, high-volume development capabilities across a vast array of innovative projects.

Read more about my open source contributions $\rightarrow \rightarrow$

Relevant Links & Web Impact

- Repositories: <u>PlotSquared</u>, <u>FastAsyncWorldEdit</u>, <u>OhMyForm</u>, <u>PlotHider</u>
- Projects: <u>ViperWire.ca</u>, <u>Nitric Concepts</u>, <u>ShowerLoop</u>

Open Source & Infrastructure

PlotSquared & FastAsyncWorldEdit

2013-Present

Contributor to major Minecraft server plugins, focusing on performance optimization and security enhancements.

- Contributed to <u>PlotSquared</u>, a land management plugin with 572+ stars and 809+ forks
- Enhanced <u>FastAsyncWorldEdit</u>, improving world manipulation performance with 664+ stars
- Implemented security improvements and performance optimizations for largescale server operations

Read more about PlotSquared & FastAsyncWorldEdit → →

Athion.net Infrastructure

2013-Present

Established and maintained critical infrastructure supporting Nitric Concepts' official Minecraft Marketplace partnership, with PlotSquared and FastAsyncWorldEdit tooling used by content production companies in the \$5 billion Minecraft gaming ecosystem.

- Set up and maintained <u>Jenkins CI/CD pipeline</u> since 2013, supporting Nitric Concepts' official marketplace partnership and the tooling used by content production companies
- Hosted infrastructure enabling collaboration between developers and Microsoft for official Minecraft Marketplace content creation through Nitric Concepts
- Implemented robust security measures and performance optimizations for hightraffic development environments supporting a \$5 billion gaming brand

Software Engineer

Oh My Form (Sunset Project)

2020 - 2024

Led development of Oh My Form (now sunset and succeeded by <u>Formbricks</u>), an open source alternative to Google Forms and Office 365 that enabled data sovereignty and privacy-focused form building, achieving over 1.5 million Docker pulls as verified by <u>Docker Hub</u> and <u>archived</u>.

- Developed and maintained a secure, high-performance form builder application focused on data sovereignty
- Created an open source alternative to Google Forms and Office 365 for privacyconscious organizations
- Implemented robust security measures and best practices for data protection
- Optimized application performance and user experience while maintaining privacy standards

Read more about my open source success → →

Home Infrastructure Cluster & WireGuard Mesh Networking

2020-Present

Built a comprehensive home infrastructure cluster using repurposed MacMini hardware for complete data sovereignty, including self-hosted email, DNS, and 100+ services, plus developed a WireGuard mesh networking tool for quantum-resistant networking deployment.

- Constructed a home cluster from repurposed MacMini hardware to maintain complete data sovereignty and avoid cloud dependencies
- Self-hosted critical infrastructure including email, DNS, and over 100 additional services for complete data control
- Developed a WireGuard mesh networking tool designed to simplify deployment of mesh networks as opposed to traditional hub-and-spoke architectures
- Created infrastructure tooling that enables ease of deployment for quantumresistant networking solutions
- Implemented comprehensive self-hosting strategy to keep personal and business data out of cloud environments
- Architected and deployed georedundant, nuclear war-resistant DNS cluster for clients

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