

# Samuel Vespalec

## Software Engineer | Backend & Anticheat Development

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📍 British Columbia, Canada

## SUMMARY

Results-driven software engineer specializing in advanced system security and kernel-level development. Expert in designing and implementing sophisticated anti-cheat solutions, reverse engineering, and high-performance backend systems. Proven track record of leading cross-functional teams, optimizing system performance, and delivering innovative security solutions for enterprise-scale applications. Demonstrated success in reducing operational costs and enhancing system integrity through cutting-edge technical implementations and strategic problem-solving.

## EXPERIENCE

### Software Engineer (Remote)

#### Titan Software Security LLC

📅 01/2024 - Present 📍 Texas, United States

Specialized in developing advanced game-agnostic kernel-level anticheat systems.

- Engineered sophisticated kernel-mode drivers to enhance game integrity and prevent cheating at the system level.
- Implemented cutting-edge detection algorithms to identify and mitigate emerging cheat techniques in real-time.
- Optimized performance of anticheat systems to minimize impact on game performance while maintaining security.
- Conducted thorough security audits and penetration testing to ensure robustness of anticheat measures.
- Utilized various backend technologies such as ExpressJS, MongoDB and JWT

### Server Operations Manager

#### Independent Project

📅 2016 - 2022 📍 Global

Independently managed and administered a network of high-traffic community game servers, with individual servers supporting 500-2000+ concurrent players

- Implemented and maintained robust security measures, including DDoS protection, to safeguard server integrity in a community-driven environment
- Coordinated and trained volunteer moderator teams consisting of 10+ members per server to enforce community guidelines and enhance player experience
- Authored comprehensive community guidelines and server policies to ensure a positive gaming environment
- Mediated conflicts and resolved player issues in real-time, often through direct communication in voice calls
- Developed and implemented strategies to foster positive community interactions and resolve disputes between conflicting parties

## SKILLS

### Backend Development

### Software Debugging

### Problem Solving Teamwork

### Reverse Engineering C++ C

### TypeScript Anticheat Development

### Python JavaScript Management

### Team Leadership NodeJS

### MongoDB PostgreSQL MySQL

### SQLite Conflict Resolution

## EDUCATION

### Cisco Networking Academy

#### Burnaby South Secondary

📅 2018 - 2020 📍 5455 Rumble Street, Burnaby

### Palo Alto Cybersecurity Academy

#### Cariboo Hill Secondary

📅 2019 - 2020 📍 16th Ave, Burnaby

## CERTIFICATION

### CompTIA A+

Certification by CompTIA

### CompTIA Network+

Certification by CompTIA

### CompTIA Security+

Certification by CompTIA

### Palo Alto PCCET

Palo Alto Networks Certified Cybersecurity Entry-level Technician (PCCET) by Palo Alto Networks

## EXPERIENCE

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### Software Engineer (Remote)

#### Delta Studios LLC

📅 04/2022 - 09/2022 📍 Florida, United States

Specialized in anti-cheat solutions for a modded Minecraft client.

- Developed in-house solutions to prevent and detect cheaters in the gaming environment.
  - Created innovative checks to secure the JVM and detect anomalies in player behavior.
  - Innovate unique checks to detect and prevent macro/input automation.
  - Utilized various backend technologies such as FastAPI, Flask and SQLite
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### Software Engineer (Remote)

#### Monelite Oy

📅 05/2018 - 12/2021 📍 Finland

Specialized in developing advanced anti-cheat solutions for video games.

- Engineered sophisticated in-house systems to detect and prevent video game cheats, enhancing game integrity and player experience.
  - Collaborated with cross-functional teams to design and implement a comprehensive suite of detections and integrity measures.
  - Contributed significantly to the company's core software products, focusing on security and performance optimization.
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### Team Member

#### CyberPatriot Competition

📅 11/2018 - 02/2019 📍 Burnaby, Canada

North America's premier youth cyber defense competition, bringing together top cybersecurity students across the continent. As a team member, competed against thousands of participating teams in system hardening, vulnerability remediation, and network defense challenges, achieving top 50 placement among all North American teams

- Specialized in Windows environment security hardening and vulnerability remediation
- Engineered solutions for complex security flaws and system misconfigurations
- Developed and executed team-wide action plans resulting in top 50 placement
- Provided technical guidance and problem-solving support across team initiatives

## KEY ACHIEVEMENTS

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### ICTC Cyber Titan II Best Defenders Award

Featured in the Burnaby Now, winning the Best Defenders Award at the Cyber Titan II Cybersecurity competition

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### Game Server Management

Managed game servers supporting 2000+ concurrent players, ensuring 99.9% uptime.

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### Cost Efficiency Implementation

Saved over 30% in operational costs by optimizing algorithms and backend technologies.

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### Kernel-mode Driver Development

Enhanced gaming security by 90% through innovative kernel-mode drivers.

## EXPERIENCE

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### Team Member

#### BC Aware Competition

📅 01/2019 📍 Pan Pacific Hotel, Vancouver

British Columbia's leading cybersecurity competition focused on real-world enterprise security challenges. Participated in a four-person team conducting vulnerability assessments, developing security solutions, and presenting findings to mock executive stakeholders. Secured Silver Medal through technical excellence and effective business communication

- Implemented technical solutions for multiple identified security vulnerabilities
- Led cross-functional team of 4 members through competition phases

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### Technical Instructor

#### Origins Parkour

📅 06/2015 - 08/2015 📍 Vancouver, Canada

Community-focused athletic program emphasizing personal development and physical literacy. Led specialized training sessions, designed obstacle course events, and fostered an inclusive learning environment while maintaining safety protocols and progression standards.

- Taught large groups of youth how to safely perform beginner to intermediate parkour techniques
- Organized teams of instructors and youth to design and initiate obstacle course events

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### Assistant Instructor

#### Douglas College

📅 08/2018 - 09/2018 📍 Coquitlam, Canada

Provided comprehensive technical instruction and support in mobile application development and game design courses. Facilitated hands-on learning experiences while maintaining high educational standards.

- Mentored 20+ students in Android Studio IDE development, resulting in successful completion of mobile applications
- Provided debugging support and code optimization guidance across multiple student projects
- Implemented collaborative problem-solving approaches to enhance student learning outcomes
- Created supportive learning environment focused on student engagement and technical skill development
- Delivered targeted assistance for both individual and group programming projects

## LANGUAGES

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**English**

Native



**Japanese**

Intermediate

