Ross Simpson

Web App Development, Scaling, and Security

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About Me

I find and solve problems other people miss, whether logic errors in small codebases or vulnerabilities in multi-million dollar platforms - and I "get things done".

I have over 20 years of experience developing web applications in ecommerce, fintech, and cybersecurity industries. I favour "the right tool for the job", doing more with less, and working hard upfront to avoid repeating work later.

Although primarily a developer, I achieved my "Offensive Security Certified Professional" (OSCP) certificate in 2018, have carried out many penetration testing engagements, and am actively involved in the local hacker community.

I've operated in environments with SOC2, GDPR, and other compliance requirements, balancing security with practical engineering, and have run my own consulting company since 2009.

Technical Skills

(in order of most recently used)

Software Development

- Python
- Go
- Ruby on Rails
- Java (VertX)
- Clojure
- PHP
- Bash
- GraphQL
- Claude Code
- NodeJS & TypeScript
- C#
- OpenCode

Infrastructure

Generative AI

- LiteLLM
- LangChain
- Ollama
- OpenClaw
- Microsoft Foundry
- Open-WebUI

Cloud Platforms and Technologies

- Microsoft Azure
- Cloudflare
- Google GCP
- Amazon AWS

Containerization

- Docker
- Kubernetes
- Calico (Policies)

Databases

- MySQL / MariaDB
- MongoDB
- PostgreSQL
- Google BigQuery
- DuckDB
- AWS DynamoDB
- Azure SQL
- AWS Athena

CI/CD Pipelines and tools

- Azure DevOps
- Jenkins
- SonarQube
- AWS CodePipeline
- AWS OpsWorks

Automation and Monitoring

- Grafana
- Puppeteer / Playwright
- Azure LogAnalytics
- Apache Airflow and Hop
- InfluxDB
- N8N
- LogicMonitor
- HomeAssistant

Cybersecurity

Certificates

- Torq HyperAutomation: Torq Automation Expert - Aug 2025
- Swimlane SOAR: Turbine Administrator - Sep 2024
- Varonis Role: Security Teams Learning Path - Aug 2024
- Google Security Operations SOAR: Chronicle Certified SOAR Developer (CCSD) - Dec 2023
- OffSec Certified Professional (OSCP) - Jun 2018

Services and tools used

- Torq Hyperautomation
- HTTP Toolkit
- Google Chronicle SOAR
- Wireshark
- Swimlane Turbine
- Kali Linux
- BurpSuite
- Splunk

Other Platforms and Technologies

- ServiceNow
- Metabase
- Elasticsearch
- Apache Spark

Work Experience

Integrity360 (UK - remote)

Senior Developer (May 2022 - Present)

A European based Managed Security Service Provider (MSSP) and cybersecurity company.

- Setup and configured Azure Cloud based infrastructure and CI/CD pipelines
- Assisted in migration of >100 clients between external platforms with no downtime or service disruption
- Developed API microservices serving client-facing applications
- Designed and setup private AI infrastructure (LiteLLM, Ollama, etc) aligning with compliance requirements (SOC2/GDPR), for use by employees and internal applications
- Built integrations, data ELTs, and near-realtime syncs between business-critical systems
- Created monitoring tooling and Grafana dashboards

Orange Cyberdefense (ZA - remote)

Senior Developer (May 2021 - Apr 2022)

A European based MSSP, with a strong ethical hacking (pentesting) focus and a South African presence.

- Developed new features and resolved bugs within the customer portal
- Improved integration between the customer portal and ServiceNow
- Made improvements to SensePost's training platform
- Worked on internal Golang and machine learning security tools

Deimos (ZA - remote)

Principal Security Engineer (Nov 2020 - Apr 2021)

A cloud-native solutions provider focused on multi-cloud strategies.

- Advised clients on microservice architecture design and cloud-native migration
- Assisted in development of a USSD e-commerce system for a large local retailer in C#
- Conducted penetration testing for clients, including security vendors, fintech, and cryptocurrency platforms

Bibblio (UK - remote)

Developer (Nov 2016 - Oct 2020)

A machine-learning content recommendation company maximizing user engagement and content ROI.

- Built REST APIs in Clojure on AWS cloud infrastructure, using AWS Lambda and event-driven architecture
- Optimized Apache Spark based training process and orchestration, reducing processing times and costs
- Developed custom headless-browser diagnosis tools to automate checking and debugging of integrations

Konga Online Shopping (ZA)

Developer (Aug 2015 - Oct 2016)

A large e-commerce company in Africa, serving customers across a range of connectivity levels and devices.

- Migrated a monolithic PHP application to Node.js microservices
- Built REST and GraphQL API backends for a Progressive Web App featured by Google
- Identified and resolved security vulnerabilities in other systems, including a related payment service and its SDKs

Earlier employment (2004 - 2015)

- **VisionOSS** - Developer (Apr 2015 - Jul 2015)
- **Global Kinetic** - Security Development and Research (Mar 2014 - Mar 2015)
- **Platform45** - Ruby on Rails Developer (Jun 2012 - Feb 2014)
- **Handguns & Tequila** - Ruby on Rails Developer (Jun 2010 - May 2012)
- **JAM Web Designs (USA - remote)** - PHP Developer (Aug 2009 - May 2012)
- **Spaceacre** - PHP Developer (Aug 2004 - Jul 2009)

Community Activities and Achievements

Conference Talks

- B-Sides Cape Town: "Knock knock. Race Condition. Who's there? - 6 Dec 2025
- B-Sides Cape Town: "Hacking "AAA" Unreal Engine Games with... Python? - 2 Dec 2023
- B-Sides Cape Town: "Shall We Play A Game?" - 1 Dec 2018
- 0xcon: "Shall We Play A Game?" - 10 Nov 2018
- B-Sides Cape Town: "Docker for Hackers" - 2 Dec 2017
- B-Sides Cape Town: "Lock Picking" - 1 Dec 2012
- B-Sides Cape Town: "Game Hacking" - 1 Dec 2012
- ZaCon: "Game Hacking" - 27 Oct 2012
- ZaCon: "iPhone Hackery" - 9 Oct 2010

Workshops and Events hosted

- Monthly local hacker meetup "0xC0FFEE Cape Town" - from 2016 to 2024
- DEF CON 20 Documentary screening @ Labia - 17 Aug 2013
- "Android hacking with Mercury" (aka Drozer) - 13 Jul 2013
- "Hacking with Metasploit" - 6 Apr 2013

Other

- "Go Burping" tool to remove HTTPS verification in Go binaries - Aug 2025
- Created mods for the game R.E.P.O with over 150k downloads - May 2025
- Completed most SANS Holiday Hack challenges since 2016
- Created a Unity3D based CTF game "WarAndUnity" - Oct 2021
- Created an 8bit NES Game for BSides Cape Town - Dec 2016
- Regularly participated in Hack The Box
- Attended DEF CON 24 and BSidesLV in Las Vegas - Aug 2016

Education

OffSec

Offensive Security Certified Professional (OSCP) - June 2018

CTI Education Group

Comprehensive Programming Diploma - 2002