

Nicholis du Toit

Pretoria, South Africa

<https://www.linkedin.com/in/nicholis-du-toit/>

<https://github.com/TrueWinter>

UTC-5 to UTC+2 (remote positions)

About Me

I am a hard-working, quick-learning engineer with experience across development, infrastructure, and support. Proficient in JavaScript, Node.js, React, Astro, Java, and more, I have developed complex, mission-critical applications and optimized various systems. I enjoy using technology to solve complex problems and continuously improve my skills to deliver innovative solutions.

Work Experience

Binaryfrost

Position: Founder & Full-stack Developer

Period: August 2023 – Present

Website: <https://binaryfrost.net>

Binaryfrost provides essential tech solutions to small and medium-sized businesses at an affordable cost.

- Configured Linux servers with Nginx and HAProxy for web hosting, ensuring 99.9% uptime.
- Managed MySQL, MongoDB, and Redis databases.
- Developed websites for clients using Astro with page speed and user experience in mind, scoring nearly 100 across the board on PageSpeed Insights.
- Created a centralized contact form manager (Java, Javalin, React, Mantine, MongoDB), eliminating repetitive contact form programming and centralizing email infrastructure.
- Created a multi-tenant headless CMS (Node.js, Express, React, Mantine, MySQL, Backblaze B2) to reduce the workload of managing multiple CMS instances.

Skills

Websites

HTML CSS
JavaScript WebSockets
Technical SEO
Responsive Design

Web Servers

Nginx HAProxy

Frameworks

Astro Jekyll
React Bootstrap
Mantine Javalin
Express

Languages

JavaScript Node.js
TypeScript Java
Go PHP

Tools

Git GitHub
Webpack Docker
UptimeRobot Sentry
Freshdesk FreeScout

Databases

MySQL SQLite
MongoDB Redis

Position: IT Manager

Period: July 2016 – Present

Website: [REDACTED]

[REDACTED] provides tented accommodation in a South African game reserve. Being technologically advanced has allowed it to stand out from competitors and enhance the guest experience.

- Developed a high-performance (1.5s load on 20Mbps) user-friendly website (Astro, Bootstrap), reducing bounce rate from 50% to 30% and increasing sales by 50%.
- Managed their network (consisting of Mikrotik routers) and servers, both on-premises and cloud, ensuring security, legal compliance, and network quality at peak times.
- Developed a custom point-of-sales system using Electron, improving check-out speed.

Endless Group

Position: Support Agent (Volunteer)

Period: September 2019 – August 2021

Website: <https://theendlessweb.com>

Endless Group is a non-profit that provides free website hosting to students and non-profit organizations through their Endless Hosting product.

- Answered customer's technical questions related to cPanel and later DirectAdmin.
- Worked with management to reduce the number of spam accounts on the free plans.
- Made recommendations on how to improve services in a cost-effective manner.

Education

School	Period
[REDACTED]	2020
[REDACTED]	2018-2019
[REDACTED]	2015-2017

Platforms

Cloudflare BunnyCDN
GCore CDN Backblaze B2
Netlify Vercel

System Administration

Ubuntu Debian
Authoritative DNS (BIND)
- AXFR, OctoDNS
Recursive DNS
- Unbound, BIND
Managing server hardware
Proxmox CI/CD
Grafana Prometheus

Hosting Providers

Hetzner Vultr
DigitalOcean OVH

Software Development

Electron Wails
Android Development (Java)

Networking

Mikrotik pfSense
VLANs IPv6
WireGuard BGP
Linux networking
- routing, firewall, tunnels

Vulnerability Testing

Responsibly reported security vulnerabilities to companies, following industry standard vulnerability disclosure policies. Companies vulnerabilities have been reported to include Vodafone UK, Citrix, and Spotify (<https://hackerone.com/truewinter>, <https://support.citrix.com/article/CTX260942/citrix-security-acknowledgements>, <https://blog.truewinter.dev/2019/06/08/vodafone-uk-subdomain-takeover>).

Showcase

Below is a list of a few of my personal projects, chosen to demonstrate my skills in different environments. A full list of my open-source projects is available on my GitHub profile (<https://github.com/TrueWinter>), and the GitHub organizations I'm a part of.

A Dad Joke Bot

<https://adjb.cc>

This website (built with Astro and Bootstrap, hosted on Cloudflare Pages) supports a popular Discord bot used in over 4,000 communities. The bot was developed using Discord.js and uses Redis for real-time data sharing and MySQL for storing user preferences. The dashboard, created with Express and EJS, features interactive components made with Preact.

TwilioCallRouter

<https://github.com/TrueWinter/TwilioCallRouter>

A tool that enables users of Twilio SIP phones to route calls based on configurable rules. This project allows for blocking calls to/from certain countries or rerouting based on area codes, enhancing call management.

Framed

<https://github.com/Framed-App/framed>

A desktop app for Twitch streamers to diagnose dropped frames. Developed with Electron, it continuously collects data and conducts network tests when issues are detected. The app communicates with a custom API hosted on Cloudflare Workers and integrates with the Windows API via a native Node.js C++ module. An accompanying Android app allows users to monitor data remotely.

Birch

<https://github.com/TrueWinter/birch>

A Minecraft log viewer (built using Go, React, and Wails) for Windows and Mac that allows users to easily search chat log. It features a powerful search feature and search queries can be saved to a file (using an efficient custom binary file format) for later use.