

DARREN GRAY

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GitHub: github.com/nerrad567 · Portfolio: <https://electrician.onl>

PROFILE

Junior Infrastructure / Systems / OT Engineer with a strong electrical background - running real Linux and Docker platforms for my own business. I design VPN-first networks with WireGuard, firewalls, encrypted backups and automate work using PowerShell, Bash, and Python. Comfortable working from physical wiring and devices up through networks, VPS hosts, containers and web apps - with a safety-first mindset from electrical work. I use AI tools and documentation heavily to move quickly in unfamiliar areas and I'm now looking to move into a full-time role where I can own and improve infrastructure and OT-style systems end-to-end.

CORE SKILLS

DevOps & Infrastructure

- Linux server administration (Debian/Ubuntu), systemd, basic hardening and troubleshooting
- Docker & Docker Compose for multi-service stacks
- Reverse proxying & routing with Traefik and/or nginx (HTTP, HTTPS/TLS)
- Deploying and maintaining self-hosted application stacks on VPS hosts

Networking & Security

- WireGuard VPN (remote access and site-to-site), basic routing, VPN-first access design
- Firewalling with iptables, SSH hardening, least-privilege access
- Encrypted backups with GPG and off-site sync using rsync/rclone
- Ran a Cardano stake pool node on Linux (staking, consensus, secure key handling)
- Focus on OS image integrity and secure tooling (e.g. custom USB verifier for Windows ISOs)

Automation & Tooling

- PowerShell scripting for automation, verification, OS tooling, and SSH workflows on Windows
- Bash / shell scripting for sync jobs, backups, bootstrap, and maintenance tasks on Linux
- Python scripting for API integrations, data automation, and custom tools
- Git and GitHub for version control, branching, and code/documentation history
- Comfortable reading docs, APIs, and logs to debug issues independently without copy-paste fixes

Programming Languages & Web Technologies

- Python for scripting, API consumption (e.g. blockchain marketplaces), and data processing
- HTML, CSS, and JavaScript for simple interfaces and application customisations
- Experience with REST/HTTP APIs and JSON for integrations

Conceptual & Multi-Disciplinary Knowledge

- Practical grasp of the OSI model: from physical wiring and switching to VPNs, routing, HTTP, and APIs
- Hardware fundamentals from electrical work: circuits, protection, fault-finding, and integrating devices with software
- Regular use of AI tools to speed up configuration work, script generation, and troubleshooting

Applications & Platforms

- Dockerised web apps and ERPs, including database and file-store management
- Web stack basics: HTTP, DNS, certificates, TLS termination, reverse proxying
- Experience running self-hosted services entirely behind VPNs

Transferable / Professional Skills

- Strong diagnostics and fault-finding from electrical background; methodical, evidence-led approach
- Clear written and verbal communication; able to explain technical issues in plain English
- Safety and risk-focused mindset: thinking in terms of failure modes, remediation, and “what if this breaks?”
- Used to working independently, prioritising work, and taking ownership of systems end-to-end

HIGHLIGHT PROJECTS

Production Odoo ERP Stack – graylogic-erp-site (Live – <https://www.graylogic.uk>)

Tech: Linux, Docker, Docker Compose, Odoo 18, Traefik, nginx, TLS, GPG, iptables, PowerShell, Bash

Built and operate a Dockerised Odoo 18 ERP + website on a self-managed Linux VPS. Use Docker Compose and Traefik for routing and automatic TLS, with GPG-encrypted backup/restore scripts (Linux + PowerShell), restore-tested disaster recovery, and hardened access via iptables and minimal exposed ports. This stack runs the live backend for graylogic.uk and handles everything from network access to application data.

Secure Self-Hosted Content Platform – secure-media-lab

Tech: Debian, Docker, WireGuard, rsync, rclone, HTTP API, GPG, Bash

Designed a VPN-only content management and archival stack where all services are reachable only over WireGuard. Implemented API-driven sync from a remote download service, encrypted off-site backups (rclone + GPG), and iptables + SSH hardening so the environment behaves like a small production platform rather than a hobby lab.

SSH Login Helper – ssh-login-helper

Tech: PowerShell, JSON, OpenSSH

Built a PowerShell-based SSH launcher that reads OpenSSH config plus JSON metadata and presents an interactive menu of hosts (descriptions, default users, ports, post-connect commands). Reduces friction when working with multiple servers and keys from Windows and showcases structured tooling design, JSON-based config, and robust error handling.

Secure Remote Monitoring Site over Starlink – Remote OT-Style Deployment

Tech: WireGuard, OpenWrt (Brume), Ubiquiti NanoStation, Hikvision NVR, VPS

Designed and deployed a remote monitoring site behind a Starlink connection. Used a Ubiquiti wireless bridge and an OpenWrt-based Brume router as a WireGuard client back to my VPS, so the NVR and local network are reachable only over a VPN overlay. Implemented routing and firewall rules to separate monitoring equipment from the rest of the network, enabling secure remote access, alerts, and administration with no direct public exposure – treating the site as a small OT/field location on a wider secure infrastructure.

Windows USB Integrity & Threat Scanner – usb-verifier

Tech: PowerShell, DISM, hashing (SHA256), structured logging

Developed a ~2k-line PowerShell tool that verifies Windows install USBs against a known-good ISO. Classifies matched, modified, extra, and missing files and performs deep WIM/ESD/SWM inspection, including safe temp handling and optional reassembly of split images. Produces structured logs and clear phase-by-phase reporting to support security and integrity reviews of installation media.

NFT Market Tracker – nft-price-updater

Tech: Python, REST APIs, Google Sheets API, JSON

Created a Python script integrating with the jpg.store API to fetch real-time NFT prices, sales, and trends, automatically updating a Google Sheets dashboard on a schedule. Handled rate limiting, errors, and JSON parsing for blockchain asset monitoring and reporting.

Cardano Stake Pool Node Operation

Tech: Cardano CLI, Linux, Bash scripting, wallet management

Set up and ran a Cardano blockchain stake pool node on Linux, configuring consensus participation, staking delegations, and secure keys. Monitored performance and sync, maintained the node, and gained hands-on experience with decentralized systems before shutting down the pool due to low stake.

EXPERIENCE

Owner / Engineer – Gray Logic Electrical (self-employed) Colchester, UK · 2020–Present

Run a small electrical and automation business and its entire IT stack end-to-end. This includes a self-managed Linux VPS hosting a Dockerised Odoo ERP + website, a VPN-only self-hosted services platform, remote monitoring/OT-style sites over WireGuard, and scripted backup/restore processes using PowerShell, Bash, Python, rsync/rclone, and GPG. Day-to-day work includes deploying containers, managing DNS/TLS/firewalls, automating tasks (often with AI-assisted script generation), troubleshooting across layers, and keeping everything in Git.

On the electrical side, carry out installations, fault-finding, testing/inspection (EICRs), and upgrades in domestic and small commercial environments. This builds a strong safety and reliability mindset, rigorous documentation habits, and clear client communication skills – now being applied to infrastructure and OT-focused engineering work.

EDUCATION & CERTS

BTEC National Diploma in Computing - Further Education College (UK) · 2002–2004

Two-year Level 3 programme covering software, hardware, networking, and IT support fundamentals.

GNVQ in ICT -Further Education College (UK) · 2001–2002

Post-school vocational course focused on core ICT skills and practical computer use.

Various Level 3 Electrical Qualifications (UK) · 2005 onward (studied alongside work)

Completed multiple Level 3 electrical qualifications in installation, inspection & testing, and regulations, building the technical and safety foundation for later work as an electrician and control/automation engineer.

HNC in Electrical Engineering – in progress (part-time) · Ongoing

Focusing on electrical principles, control systems, and engineering maths to formalise and extend existing practical experience.

Self-directed IT / DevOps / Infra training, including:

- Linux (Debian/Ubuntu) administration and networking
- Docker & Docker Compose for application stacks
- WireGuard VPN, iptables firewalling, SSH hardening
- Backup/restore, rsync/rclone, GPG encryption
- Python, HTML/CSS/JS, blockchain fundamentals
- OSI model and AI-assisted problem-solving

TARGET ROLES

- Junior Infrastructure / Systems Engineer (Linux, Docker, VPN, firewalls)
- OT / ICS Support or Field Engineer (secure remote access, industrial / building automation, and monitoring systems)
- Network / Automation Engineer (bridging electrical installations with networking and Linux systems)
- Junior DevOps / Platform Engineer (infra-focused roles using Linux, containers, scripting, and CI rather than pure app development)