DONAL LYNCH

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Principal Platform & Security Engineer – 15 years experience - Currently solo founder of CraicChat

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PROFESSIONAL SUMMARY

Highly accomplished **Principal Platform Engineer** with 15 years of experience specializing in high-security, real-time and scalable distributed systems. Sole owner of the **CraicChat** social platform, encompassing full-stack development, automated CI/CD, and **advanced security hardening (CIS Level 2, Docker UserNS, Kernel Lockdown)**, verified by a public **92/100 production security audit**. Expertise in PHP/Symfony, Node.js, and high-availability zero-downtime deployment.

KEY TECHNICAL EXPERTISE

- **Security & Hardening: Linux Host Hardening (CIS Level 2/DISA STIG)**, **Docker UserNS Remapping**, AppArmor/Seccomp, **Kernel Lockdown: Confidentiality**, Fail2Ban (Custom IPS), GDPR Compliance.

- **DevOps & Platform:** Docker, **Custom CI/CD Automation**, Systems Architecture, **Zero-Downtime Deployment**, Nginx, Git.

- **Backend & Frameworks:** PHP 8, **Symfony 7 (High-Volume)**, Node.js (Real-time Socket.IO), E2EE Messaging, RESTful API design.

- **Database & Messaging:** MariaDB, Redis (Caching/Sessions), **RabbitMQ (Advanced Message Queuing)**.

PROFESSIONAL EXPERIENCE

🚀 CraicChat – Social & Messaging Platform (craicchat.com) (2023–Present)

Role: Sole Systems Architect & Backend Engineer (Self-Directed Project)

- **Security & Hardening:** Designed and hardened production stack to a **92/100 Holistic Bastion Score** (CIS Level 2/STIG, Kernel Lockdown: Confidentiality), implementing **Docker UserNS Remapping** across all 9 services for containment of container-escape risks.

  - ***Public Audit:*** *Full security audit output available at [github.com/donallynch/craicchat]*

- **Platform & Development:** Architected and deployed the full-stack, real-time **E2EE messaging platform** (Symfony 7, Node.js/Socket.IO) and managed **170+ consecutive zero-downtime deployments** via a custom CI/CD pipeline.

- **Threat Defense:** Implemented a robust Intrusion Prevention System (IPS) using **16 custom Fail2Ban jails**, successfully blocking over **600 aggressive attacking IPs** (RCE, exploits, sensitive probing) from impacting the service.

🏢 **Senior Software Engineer – Scorebuddy (2021–2024)**

- **Led** the migration of key microservices from legacy architecture to Dockerized PHP 8/Symfony containers, improving deploy reliability by **30%**.

- **Maintained** scalable backend services utilizing AWS, MySQL, Redis, and Docker in an agile team environment.

🏢 **Other Commercial Experience (2012–2021)**

Senior Software Engineer at Creative Collisions, Cars Ireland, YOUniversal Next Media, Hostelworld.

- Delivered high-scale features across multiple industries (e-commerce, travel, media), specializing in **PHP/Symfony backend architecture, payment integrations, and early adoption of containerization technologies.**

EDUCATION

- **M.Sc. in Computing Science** – Griffith College Dublin (2010)
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