

NICHOLAS BLY

Cranford, NJ 07016 | (908) 347-1769 | nicholasbly@gmail.com

[LinkedIn](#) | [GitHub](#) | Portfolio: [nickbly.com/portfolio](#)

PROFESSIONAL SUMMARY

Software developer and IT support professional with a Master of Information Systems Management and 10+ years of hands-on experience building, releasing, and supporting production software. Creator and maintainer of an open-source smart TV application with 14,000+ downloads and 395 GitHub stars, shipped through 50+ production releases and 300+ CI/CD pre-release builds with same-day issue triage. Background spans C# .NET application development, Python automation, remote desktop support for a 300+ user base, and hardware diagnostics and repair. Google Certified in Cybersecurity. Seeking an IT support, application support, or software engineering role in Northern or Central New Jersey.

TECHNICAL SKILLS

Programming Languages: C#, Python, JavaScript, SQL, PowerShell, Bash, HTML5, CSS3

Frameworks & Libraries: .NET Core, .NET Framework, ASP.NET MVC, WinForms, Entity Framework, xUnit, Node.js tooling

Databases: MySQL, SQLite, SQL (queries, joins, stored procedures)

DevOps & Version Control: Git, GitHub, GitHub Actions, CI/CD pipelines, Docker, containerization, release management, semantic versioning

Operating Systems: Windows 10/11, Linux (Ubuntu, Kali), Android (ADB), LG webOS

IT Support: Remote desktop support, RDP, TeamViewer, end-user support, troubleshooting, root cause analysis, ticket triage, hardware diagnostics, OS installation and imaging, RAM and SSD upgrades, system optimization

Security & Analysis: Vulnerability disclosure, application hardening, code obfuscation, anti-tampering, token-based authentication, encrypted HTTPS request handling, Wireshark, network traffic analysis, Ghidra, IDA Pro, HxD, binary and protocol reverse engineering

Development Practices: Object-oriented programming, debugging, unit testing, code review, REST API integration, JSON, DOM manipulation, responsive UI/UX design, technical documentation

PROFESSIONAL EXPERIENCE

TechNick Computer Services — Cranford, NJ

2014 – Present

Independent Software Developer & IT Support Consultant

Self-Employed

- Designed, built, and shipped a Windows desktop application in C# .NET to a base of **300+ licensed users**, owning the full lifecycle from architecture through release, licensing, and ongoing customer support.
- Implemented secure token-based authentication, encrypted HTTPS request handling, code obfuscation, and anti-tampering protections to safeguard licensed software and user accounts.
- Maintained a **48,000-line codebase** spanning 16+ discrete feature modules across 10 supported applications over six years of active development, testing, and iteration.
- Delivered Tier 1 and Tier 2 remote desktop support to users via TeamViewer and AnyDesk, handling installation, configuration, connectivity issues, and escalated troubleshooting with documented resolutions.
- Conducted 1:1 application security code review sessions for other .NET developers, advising on obfuscation, anti-debugging, and secure request handling.
- Reverse-engineered binaries, memory structures, and network protocols using Ghidra, IDA Pro, HxD, and Wireshark to diagnose defects and build interoperable features.
- Discovered and responsibly disclosed a memory-handling security vulnerability in the Xbox 360 platform (2019).
- Built, diagnosed, and repaired desktops, laptops, and all-in-one systems for local clients, including motherboard-level troubleshooting, RAM and SSD upgrades, keyboard replacement, OS reinstallation, and data migration.
- Automated client system maintenance with PowerShell scripts for patching, cleanup, and performance tuning, reducing downtime and improving data protection.

OPEN SOURCE & SOFTWARE PROJECTS

YouTube webOS Enhanced — Creator & Maintainer

May 2025 – Present

JavaScript, HTML/CSS, webOS SDK, GitHub Actions | 400+ GitHub Stars | 16,000+ Downloads

- Built and maintain an open-source application for LG webOS smart TVs with **16,000+ downloads and 400+ GitHub stars**, supporting every LG model from 2016 onward.
- Manage a full release pipeline using **GitHub Actions CI/CD**, publishing 50+ production releases and 300+ tagged pre-release test builds with automated build and packaging.
- Operate a public issue and discussion board as the sole maintainer: triage user-reported bugs, reproduce defects across TV firmware versions, and ship same-day patch builds for critical issues.
- Review, test, and merge community pull requests, maintaining code quality and backward compatibility across a fragmented device landscape.

- Integrated the SponsorBlock REST API for automated segment skipping and built a configuration UI using DOM manipulation, event handling, and responsive design.

Smart Air Purifier BLE Application — Sole Developer

Oct 2025 – Present

Ghidra, Bluetooth Low Energy, JavaScript, HTML/CSS

- Restored full device functionality for a discontinued IoT smart air purifier after the vendor was acquired and shut down the official application, leaving hardware unusable.
- Reverse-engineered the abandoned application binary in Ghidra to recover the Bluetooth Low Energy pairing sequence, encryption scheme, and local key derivation logic.
- Rebuilt the control interface in HTML/CSS and mapped the native bridge to reestablish direct device communication independent of the vendor cloud service.

StubBot — Founder & Developer | stubbot.net

May 2025 – Present

Python, Android Debug Bridge (ADB), automation | 35+ Licensed Users

- Developed a Python automation platform using Android Debug Bridge to programmatically drive a mobile application, implementing data parsing, decision logic, and fault-tolerant error handling for continuous unattended operation.
- Launched and operate stubbot.net as a commercial software product, handling licensing, distribution, customer onboarding, and technical support for a paying user base.

Open WebUI Local Deployment

2025

Docker, containerization, local LLM infrastructure

- Built a containerized launcher that provisions a local Open WebUI instance via Docker, providing a browser-based interface for running local AI models without cloud dependencies.

EDUCATION

Keller Graduate School of Management

2019 – 2020

Master of Information Systems Management | Concentration: Information Systems Security | GPA: 3.76

DeVry University

2016 – 2019

Bachelor of Science, Computer Information Systems | Concentration: Web Game Programming | GPA: 3.70

CERTIFICATIONS

- [Google Cybersecurity Professional Certificate — Coursera](#)
- [C# and .NET Essential Training — LinkedIn Learning](#)
- C# Unit Testing with xUnit
- C# Practice: Generic Collections
- C# Programming — Udemy