BENJAMIN MILLAR-MILES

AV & Infrastructure Engineer | AI Automation & Integration

London · benmillarmiles@gmail.com · linkedin.com/in/ben-millar-miles-b0963b227

Engineer with 4+ years across AV, IT infrastructure and automation, supporting meeting rooms, conferencing and live events for corporate, financial and public-sector clients. Hands-on with Microsoft Teams Rooms, Cisco, Surface Hub and multi-vendor AV, and the escalation point who resolves faults independently. Builds the tooling behind it: AI agents, MCP servers and automation on n8n, Docker, Cloudflare Zero Trust, Supabase and Microsoft 365, taken from idea to tools colleagues use every day.

EXPERIENCE

AV Engineer — Alternit One, London 08/2025 – present

Support & escalation

- Escalation point for AV faults raised by the service desk and clients. Diagnose and fix Teams Rooms, Teams and Windows issues independently, coordinating vendor support when needed.
- Resolve complex multi-vendor faults end to end, e.g. Crestron UC-Audio DECT pods on Logitech RoomMate hosts (echo cancellation and DSP behaviour), DisplayLink driver issues with Logitech Swytch, and Tap IP drop-outs fixed through planned CollabOS upgrades.
- Manage firmware, configuration and device health across the estate through YMCS, Logitech Sync, Poly Lens, Neat Pulse, Teams Admin Center configuration profiles and the Teams Rooms Pro portal.

Installation & integration

- Install and integrate meeting-room systems end to end, from mounting, cabling and peripherals to platform configuration, across Microsoft Teams Rooms on Windows and Android, Zoom Rooms, Surface Hub and Cisco devices within client Microsoft 365 tenants.
- Deploy Yealink MeetingBar A40/A50 with CTP25 touch panels, Logitech RoomMate, Tap IP and Swytch, Neat Bar Pro and Pad, and Poly room systems, plus Samsung and LG displays and interactive kiosks.
- Configure and tune audio, including Shure microphones, wireless mic systems, Crestron UC-Audio, Dante networking and Sonos streaming.
- Plan and lead room deployments, network and rack builds, directing teams of on-site engineers and working directly with client stakeholders.

Maintenance, documentation & tooling

- Run quarterly preventive maintenance visits using a standard checklist covering displays, cameras, audio, codecs, control, network and cabling.
- Created the company's first AV documentation set: Yealink A40/CTP25 user guides for Teams and Zoom, Neat Bar Pro/Pad setup guides, issue reports and schematics. Also built the schematic tool now used company-wide.

AV Technician — Public-i, Brighton 10/2022 – 07/2025

- Delivered live webcasts, hybrid meetings and large public meetings for councils and corporate clients, often with senior officials, where any fault happens live.
- Operated camera automation and PTZ cameras, live audio mixing, Blackmagic ATEM switching, Dante audio, DSPs and HDMI/SDI signal routing.
- Installed and supported Biamp Tesira, Bosch, Televic and Crestron systems, with remote and on-site fault-finding, rack diagnostics and hardware repair.

Earlier roles 09/2020 – 10/2022

- Software & Data Administrator, National Business Crime Solution (software systems, sensitive data, IT helpdesk) · Business Administrator Apprentice, Embrace East Sussex (payroll, invoicing, IT suppliers)

AI & AUTOMATION

- **AV Device Manager** *(built for Alternit One)*: web app to monitor and control a multi-vendor room estate. One fleet view across Yealink, Logitech, Poly and Neat with firmware status, config-drift checks against an approved baseline, warranties and contracts, room utilisation, prioritised alerts, remote reboots with an in-call guard, firmware pushes and automatic 30-day client reports.
  - Backend in self-hosted n8n: a webhook dispatcher for every app action plus scheduled sync, alerting, heartbeat and reporting workflows, with vendor API integrations (REST, GraphQL, mTLS) and Supabase/PostgreSQL as the data layer.
  - Packaged with Docker Compose as an nginx container that runs in Docker Desktop, with no secrets in the image, behind Cloudflare Access service-token authentication.
  - Role-based access with per-user hashed keys, admin actions enforced server-side and an audit log of every call.
- **AI assistants for the AV team:** built MCP servers in JavaScript, packaged as one-click Claude Desktop extensions, that give AI assistants live device and client data through read-only tools and confirmation-gated actions. Developed Teams bot agents in Copilot Studio and Azure AI Foundry that use these servers, so staff can check room status in plain English.

- **Room pre-check:** daily check across ~100 rooms combining Microsoft Graph calendar data and test calls with device health and call-quality data, catching faults before meetings start and saving tens of hours a week.
- **Training:** ran training sessions and live demos of these tools for colleagues and management, backed by written guides the team now uses.
- **PE deal tooling** *(personal projects)*: an n8n pipeline that watches a Google Drive folder and converts uploaded CIMs and large PDFs to Markdown with Docling for AI ingest, and a deal-signal monitor that pulls PE news feeds, classifies each item with Claude by signal type and priority, logs it to Google Sheets and alerts Teams.
- **Auto-Mate** *(personal project)*: self-hosted multi-agent AI lab with an orchestrator routing work to specialist agents (build, QA, security review) and model routing to balance cost and quality. Runs on Docker on a Linux home server behind Cloudflare Tunnels and Zero Trust, with Tailscale for remote access.

SKILLS

- **Meeting rooms:** Microsoft Teams Rooms (Windows, Android), Cisco RoomOS, Neat Pulse, Surface Hub, Zoom Rooms, Teams Admin Center, Teams Rooms Pro, YMCS, Logitech Sync, Poly Lens, Crestron
- **Audio:** Shure, wireless microphones, Dante, Biamp Tesira, Sonos, DSP configuration, live mixing
- **Video & displays:** Samsung and LG displays, interactive kiosks, PTZ cameras, Blackmagic ATEM, HDMI/SDI
- **Manufacturers:** Cisco, Microsoft (Surface Hub), Yealink, Logitech, Poly, Neat, Crestron, Shure, Biamp, Bosch, Televic, Kramer, Blackmagic Design, Audinate (Dante), Samsung, LG, Sonos
- **Networking & IT:** TCP/IP, DHCP, VPNs, switch configuration, Wireshark, Windows, Linux, Microsoft 365, SharePoint, Entra ID, Graph API
- **AI:** Claude (Code, Skills, MCP), Microsoft 365 Copilot, Copilot Studio, Azure AI Foundry, ChatGPT, AI document extraction, web research automation, prompt design and output testing, human-in-the-loop review
- **Automation & data:** n8n (self-hosted: webhooks, scheduled workflows, sub-workflows, MCP Server Trigger), REST/GraphQL APIs, Supabase/PostgreSQL, Python, JavaScript, Excel
- **Infrastructure & security:** Docker (Docker Desktop, Docker Compose, multi-container builds), Kubernetes (Azure AKS), nginx, Cloudflare Zero Trust, Access and Tunnels, Tailscale

EDUCATION & TRAINING

- Diploma in Music Technology (Technology & Production) — Northbrook College, Brighton · GCSEs incl. English & Maths — Hove Park School · AVIXA online training · First Aid certified