

TRIJAL P G

Technical Founder | Founder's Office & Product Strategy | Hardware & Embedded | Software & AI | Cybersecurity
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SUMMARY

Technical founder and multidisciplinary engineer who builds both the company and the product. Founded **Qynetic Labs** and took it from business strategy to a **fabrication-ready AI edge board**. Works across **operating plans, fundraising, pricing and GTM** and hands-on **hardware, software, AI and cybersecurity** engineering.

SKILLS

Founder's Office, Strategy & GTM: Business strategy, operating plans and OKRs, fundraising strategy (equity and government grants), capital planning, investor pitch decks, market research, competitive analysis, pricing, product roadmap, go-to-market, customer segmentation, vendor management, supply-chain risk

Hardware & Embedded: PCB design (KiCad), SoC and System-on-Module integration, BGA layout, LPDDR4X/DDR routing, PMIC and power-tree design, impedance-controlled stackups, signal integrity, Gigabit Ethernet, USB-C PD, ESP32, sensors, DRC, fabrication packages

Software & AI: Python, C++, Swift, Kotlin, JavaScript, embedded Linux, BSPs, APIs, multithreading, edge AI inference, computer vision (OpenCV), ROS 2, LLM agents, MQTT, optimization (LP, MILP, QP), Git

Cybersecurity & IT-OT: Network security, TCP/IP, packet analysis, firewalls, secure-system design, cryptography, IBMS/BMS, PLC integration, industrial controls

EXPERIENCE

Founder & CEO, Hardware Lead | Qynetic Labs Private Limited, Chennai 2024 – Present

AI edge-computing hardware startup; incorporated as a Private Limited company in June 2026

- **Company building:** Founded the company and drove **2 years of prototypes** to a **product-ready board**. Opened talks with semiconductor suppliers.
- **Hardware design:** Led the KiCad design of **Vayu One**, a **6-layer SBC** on a **636-ball Rockchip RK3568**. Integrated LPDDR4X, RK809 PMIC, Gigabit Ethernet and USB-C PD into a **DRC-clean fabrication package**.
- **Operating and capital plan:** Authored an **18-month operating plan** with **6 milestones** across production, beta, hiring and fundraising. Mapped a **4-stage funding path** across equity and government grants.
- **Product strategy:** Built a **7-product portfolio** for **4 customer segments**, with **6 boards** now in development. Defined pricing, platform architecture and prototype-to-production plans.
- **Software platform:** Architected a **5-layer software platform**, from QyneticOS (Ubuntu LTS, BSPs, OTA updates) to edge inference, vision and robotics SDKs, and cloud fleet management.
- **Go-to-market:** Positioned Qynetic as a **full-stack edge-AI platform** with public-sector channels and local support, not a low-cost board maker.

Data Center Systems & IT-OT Intern | Afcons Infrastructure Ltd. (Shapoorji Pallonji Group) May – Aug 2026

- Supported **IBMS/BMS** and **IT-OT systems** for data-center infrastructure, covering building automation, monitoring and control.
- Worked hands-on with **PLCs, controllers, sensors and field devices**, mapping their communication and control logic into centralized management systems.

Freelance Web & App Developer | Self-employed, Remote 2019 – Present

- Delivered websites, web apps and mobile apps for small businesses over **7 years**. Owned each project **from requirements to handover**.

SELECTED PROJECTS

YUNA | Network Security Appliance (Hardware, Firmware, Cybersecurity) 2025

- Turned a PC-hosted network-security platform into a **standalone managed device** that runs as a **router and security appliance**.

AURA | Industrial IoT Safety Platform (ESP32, ML, Digital Twin) 2026

- Engineered a **7-sensor ESP32 node** with ML sensor fusion and a **Digital Twin dashboard**. Priced at **INR 2,500 per node** with **payback under 2 months**.

IGAOS | Optimization Solver (C++17, Smart India Hackathon 2026) | github.com/trijalpgunaseelan/Igaos-public 2026

- Developed a **zero-dependency C++17 solver** covering **5 problem classes**, from LP to MINLP. Presented a phased product roadmap to a refinery jury.

HARRY | AI Operations Agent (Swift, Python, Agentic AI) 2026

- Built a macOS AI assistant with **76 tools**, **15 modules** and **3 safety tiers** that automates briefings, inbox triage and deadlines.

More on GitHub: GEOVAX (SIH 2026) ([link](#)) • Anaesthesia Vitals Digitizer (MEDHA 2026) ([link](#)) • Dash ([link](#)) • **25 public repositories**

LEADERSHIP & ACHIEVEMENTS

- **National Winner**, Web Design Championship (2022); **National Runner-Up** (2021).
- Core member of **Code-Furious**; competed in **6+ national hackathons** in 2026, from problem framing to pitch and delivery.

EDUCATION

B.E. Computer Science & Engineering (Cyber Security) | Chennai Institute of Technology Expected 2028

Coursework: Cryptography & Network Security, Ethical Hacking, Digital Forensics. Qualified for **B.S. Data Science and Applications, IIT Madras**.