

Yasodh Jayathilake

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SUMMARY

Electrical Engineer and entrepreneur with hands-on experience building hardware from the ground up. Most recently served as CTO and Co-Founder of Trac Inc, an autonomous robotics startup, leading all engineering from CAD design through final assembly and programming. Previously founded and operated YJ Entertainment Inc, delivering full-scale event production and technical systems for the entertainment and corporate event industry. Holds a B.Sc. in Electrical Engineering from Southeast Missouri State University.

EXPERIENCE

CTO & Co-Founder

Trac Inc · trac.technology · September 2025 – Present

Led all engineering for an autonomous sidewalk pressure washing robot startup, taking the product from initial concept through a fully functional, field-tested prototype. Sole engineer responsible for every hardware and software system on the robot.

- Architected and designed the complete mechanical system in Autodesk Fusion 360, including chassis, drivetrain, structural frame, and full subsystem integration.
- Fabricated all custom components via 3D printing and precision machining; performed full hands-on assembly of the robot from raw parts to finished prototype.
- Designed and implemented the full electronics stack: custom PCBs, wiring harnesses, motor control circuitry, sensor arrays, and power distribution systems.
- Developed autonomous navigation and real-time control software on an NVIDIA Jetson Orin Nano, including path planning, computer vision integration, and motor coordination.
- Programmed low-level embedded firmware on Arduino microcontrollers for actuator control, sensor feedback loops, and hardware-software interfacing.
- Managed hardware-software integration across sensors, actuators, and embedded systems; maintained full technical documentation and BOM through all prototyping iterations.
- Advanced the robot from prototype to real-world validation through active pilot programs and live product demonstrations with prospective commercial customers.

Technician & Sales Contractor

Safe Haven Security (ADT Dealer) · mysafehaven.com · August 2024 – June 2025

- Designed and installed residential security systems for the largest ADT dealer in the US, covering alarm panels, video surveillance, and smart home automation.
- Educated homeowners on equipment and tailored system configurations to each property's specific security needs.
- Consistently exceeded sales targets, earning top salesman at the branch for two consecutive months.
- Closed over \$50K in sales within five months through consultative selling, objection handling, and strong customer relationship building.

Founder & Lead Systems Engineer

YJ Entertainment Inc · yjentertainment.com · June 2016 – June 2025

- Founded and operated a full-service event production company delivering 3D event design, audio, lighting, and creative technical services for the entertainment and corporate event industry.
- Managed end-to-end production for 100+ events, from concept and 3D rendering in VectorWorks to on-site execution.
- Applied electrical engineering expertise to design custom PCBs, power distribution systems, and IoT-based automation for scenic and architectural installations.

- Designed and built tour-ready integrated control, networking, and power distribution road cases for rapid on-site deployment.
- Developed standard operating procedures that reduced direct labor costs by over 32%, directly improving gross profit margins.
- Recruited, trained, and managed a team of technicians across client events and commercial installation projects.

EDUCATION

B.Sc. Electrical Engineering

Southeast Missouri State University · semo.edu · 2016 – 2020

Completed rigorous coursework in circuit design, power distribution systems, PLC programming, microcontrollers, and system integration. Gained hands-on lab experience with AutoCAD, SolidWorks, and PCB design. Simultaneously founded YJ Entertainment Inc, applying electrical engineering principles to live event production in real time.

SKILLS

Hardware & Embedded: NVIDIA Jetson Orin Nano, Arduino, PCB Design, Wiring Harnesses, Power Distribution, Sensors & Actuators, PLC Programming, Low Voltage Systems

Mechanical & Fabrication: Autodesk Fusion 360, SolidWorks, AutoCAD, 3D Printing, Precision Machining, CAD/CAM

Software & Programming: C++, Python, Embedded Firmware, Autonomous Navigation, Computer Vision, IoT Systems

Tools & Platforms: Git, Microsoft Office, Google Workspace, Zoho, Salesforce, Intuit QuickBooks

Certifications: Project Management Professional (PMP) · CA Mortgage Loan Originator (NMLS #2559526)