

24 years of **Software Engineering** and **DevOps** experience. 15+ years in leadership roles.

Scaled **cloud native databases**, **SaaS**, **ad-tech**, **e-commerce** and **big data** to thousands of instances serving **million+ QPS**. Built and managed planet-scale **distributed systems**. **25+ years** of experience with **Python**, **C**, **Shell**, **Java** and languages.

Led technical teams of 30+ people to generate millions of dollars of revenue from enterprise customers.

End to end architecting and development of complex cloud based systems.

Created a Linux distribution for secure, stateless and shared desktop computers. Installed in 50,000+ devices.

Founded a successful venture. Self-taught skills such as industrial design, sales, finance and electronics design.

Proficient in end-to-end **hardware design** including project planning, industrial design, BoM selection, schematics and layout, thermal modelling, metal fabrication, power, packaging, mass manufacturing, sourcing and documentation.

Work Experience

2024-date **Founder and Director** [Thinvent Technologies](#), Goa

Developed an [ERP and manufacturing automation system](#) and [e-commerce website](#) using Python Flask and AWS services.

Launched a range of industrial computers - designed enclosures and PCBs, handled thermal management.

2022-2024 **Senior Site Reliability Engineer** [Spanner SRE](#), [Google](#), Bangalore

Responsible for the 99.999% uptime of [Google Cloud Spanner](#). Leading capacity and efficiency.

Developed a Python based tool for capacity management that ran on Google's globally distributed infrastructure.

2020-2022 **Founder and Director** [Thinvent Technologies](#), Gurgaon

Developed an [embedded Linux](#) distribution for thin clients, POS, kiosks and cloud desktops.

Ported the Linux kernel and Ubuntu OS to various ARM targets. Enabled customers to migrate from x86 to ARM.

Developed a range of [hardware](#) products. Handled specification, mechanical and electronic design, fabrication, sourcing, production and marketing of these products.

Responsible for the overall management of the company with 50+ team members, through 8 senior managers.

2019-2020 **Lead, InfoSec and DevOps** [Eightfold.ai](#), Mountain View, CA

Responsible for information security, DevOps and automation of Eightfold's cloud infrastructure on AWS.

Rolled out OpenVPN, Airflow, WAF and Qualys. Ensured compliance with FIPS, CIS benchmarks and NIST 800-53.

Secured FedRAMP, SOC2 and ISO27001 certification. Handled compliance, documentation and audit.

2018-2019 **Architect and Lead, Embedded Engineering** [LiveReach Media](#), Sunnyvale, CA

Developed motion analytics [IoT devices](#). Researched next generation devices using software defined radios.

2018 **Head of Site Reliability** [Nykaa E-Retail](#), Gurgaon

Headed technical operations of the [nykaa.com](#) e-commerce portal. Enabled over a million visitors a day and 1 million USD in daily revenue. Rearchitected the system to scale to 2x the traffic with existing legacy code.

Rolled out critical initiatives: WAF, bot management, security audits, environments on demand and monitoring.

Managed 25+ engineers. Developed and nurtured vendor relationships.

2015-2016 **Senior Ground Control Engineer** [Rocket Fuel](#), Redwood Shores, CA

Architected monitoring and upgrades for Rocket Fuel's global data centre infrastructure.

Worked with Nagios, Graphite, Puppet, CentOS, Hadoop, Yarn, ELK, SaltStack, Docker, OpenStack and OpenCompute.

2014 **Vice President, ETS** [Knowlarity Communications](#), Gurgaon

Responsible for the delivery of Enterprise telephony products to a diverse range of large and medium organisations.

Managed 30+ engineers through 4 managers reporting to me.

Responsible for enterprise automation and business intelligence using custom tools, SugarCRM and JIRA.

2011-2013 **Member of Technical Staff** [Bloomreach](#), Mountain View, CA

Responsible for DevOps and SysOps: server monitoring, capacity planning, resource optimisation and cost reduction, rolling out new infrastructure on AWS cloud, and 24x7 production server issue resolution.

As the senior most member of the customer engineering team, I handled new customer onboarding, issue resolution and new product rollout for our largest customers.

- 2010-2011** **Senior Engineer (Consultant)** [ESQ Business Services](#)
Designed and developed a [remote management and monitoring solution](#) for ATMs using Jetty and Apache Commons.
- 2007-2011** **Founder and Director** [Thinvent Technologies](#), Gurgaon
Developed Linux based [ticketing terminals](#) with fraud prevention, Indic support and rapid transaction turnaround.
Developed Linux based [kiosks](#) with biometrics, breathalysers, currency acceptors, and [smartcard](#) and barcode readers.
Developed an award-winning online DC UPS that combined [solar](#), AC and battery power.
Worked on an open source SIP [soft switch](#). Developed a media gateway on a PPC and TI DSP board using Asterisk and C.
- 2006-2007** **Engineer, Projects** [VXL Instruments](#), Bangalore
Headed R&D at VXL's Linux solutions division. Implemented a statewide IT training solution for Andhra Pradesh.
- 2005-2006** **Software Engineer, MPSD and ESO** [Intel IIDC](#), Bangalore
Developed [server management firmware](#) for Intel's [server products](#).
Lab manager for IIDC SMFW. Responsible for procurement, safety, relocation and setup, inventory, shipping, etc.
Developed BSPs for Ethernet switching ICs, and manufacturing diagnostics for [switch blades](#).
- 2004-2005** **Senior Software Engineer** [Impulsesoft](#), Bangalore
Developed firmware for Bluetooth audio devices – the audio-visual user interface for an A2DP and SCO sink.
- 2003-2004** **Senior Software Engineer, DPD** [Samsung R&D Institute](#), Bangalore
Developed real time Internet fax firmware as per ITU-T T.38, and other network applications for MFPs.
Organised division-wide training, quizzing and team building activities.
Co-ordinated the division's patenting efforts. Developed and enforced coding standards as per CMMi Level 5.

Project Experience

- 2002-2003** **Masters Researcher** [IIT Madras](#), Chennai
My research work in supercomputing received the highest grade, and praise from professors and peers.
Established four cluster computers. Modelled the human visual cortex by creating an artificial neural network (ANN) distributed over the cluster using MPI. Created a job scheduler using parallel genetic algorithms and MPI.
- Summer 2002** **Summer Intern** [University of Cincinnati](#), Cincinnati
Worked on network access for rural communities using 802.11, in [Dr. Dharma P Agarwal](#)'s group.
Performed ad-hoc routing protocol simulations using the [ns-2](#) platform.
- Summer 2001** **Summer Intern** [MIT Media Lab](#), Cambridge, MA
Built a [communication tool](#) for rural communities, in [Dr. Michael L Best](#)'s research group. The software would monitor variance in channel bandwidth, latency and jitter, and adapt the codec in real time according to channel conditions.
- 2000-2002** **Project Student** [TeNet Group](#), IIT Madras
Worked on voice switching, call monitoring and DSPs in [Dr. Devendra Jaliha](#)'s research group.
Developed a Linux kernel driver and DSP code for a custom E1 PCI card for mini-[corDECT](#).
Performed ARQ and CRC on wireless data channels and interfaced them to the Linux PPP daemon.
- 2000-2003** **System Administrator** [Electrical Engineering Dept](#), IIT Madras
Maintained ten servers, 100 terminals, and 1,000 user accounts. Set up diskless workstations.
Responsible for email, DNS, proxy and remote access. Planned and rolled out new computing labs.

Education

- 1998-2003** **Dual Degree in Electrical Engineering** [IIT Madras](#), Chennai
B. Tech. In Electrical Engineering. M. Tech. In Communication Systems. Minor in Operations Research.
Secured All India Rank 663 in IIT Joint Entrance Examination.

Other

Publication: Saurabh J., Dharma P. Agrawal, "[Wireless Community Networks](#)," IEEE Computer, vol. 36, no. 8, Aug., 2003.
Six patents granted: 239445, 209598, 215445, 219189, 254905, 253866. 15 design patents granted.
Top ranking scholar in [Regional Mathematics Olympiad](#) and numerous other mathematics and programming competitions.
Active member of [AID-India](#), Greenpeace, CRY and other social and environmental organisations since 1998. Organised fund-raisers, cultural and theatrical events.
Interests include travel, photography and industrial design.