Gary Townsend

AI & Engineering Executive · Enterprise AI platforms, agentic software delivery & safety-critical systems

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20+ business systems on one AI platform	**7 to 50+** engineers on AI-assisted delivery	**150+** person engineering organizations, led twice	**£9.2M** raised in 2016 as CTO

SUMMARY

AI and engineering executive. Shipped production machine learning at Black Swan Data; now run Savvy, RAVE Aerospace's enterprise AI platform, and lead a 150+ person in-flight software organization under DO-178C.

25+ years, from safety-critical avionics to cloud SaaS and big data. As CTO of Black Swan Data, helped scale the company from 12 to 240+ people and raised £9.2M in 2016.

Current focus: enterprise AI on MCP, agent skills, and AI agents for software delivery. Also customizing LLMs and running small language models on-device.

CORE COMPETENCIES

AI & machine learning: Enterprise AI platforms · Model Context Protocol (MCP) · AI agents & agentic frameworks · Agent skills · Agentic software delivery · RAG & vector databases · LLM fine-tuning · Small language models (SLMs) on edge · Machine learning & NLP

Platforms & data: Cloud SaaS & XaaS · Multi-tenant big-data platforms · SDKs & APIs · IoT & edge computing · Kubernetes · CI/CD

Governance & safety: DO-178B / DO-178C certification · Identity & access management (IAM) · DevSecOps · Site reliability engineering (SRE) · Security compliance · Requirements traceability (DOORS)

Leadership: Large engineering organizations · Onshore & offshore teams · Fundraising: seed to Series B · Product strategy · University research partnerships · Board & executive collaboration

EXPERIENCE

VP Software Engineering · RAVE Aerospace

Brea, California · Jun 2023 – Present

Formerly Safran Passenger Innovations. In-flight entertainment and connectivity (IFEC) systems for airlines.

- Built Savvy, RAVE's enterprise AI platform: one MCP endpoint that gives employees' AI assistants governed access to hundreds of tools across 20+ business systems. Teams share agent skills, publish MCP servers through a review step, and host their own apps and databases with production approvals. New hires onboard faster by asking its vector-database knowledge base of tens of thousands of documents.
- Put AI agents into production for software delivery. Engineers stay in the loop from spec to reviewed code, and usage grew from 7 to 50+ engineers across 70+ repositories in 2026 (6,000+ AI co-authored commits).
- Lead a 150+ person engineering organization delivering in-flight software under DO-178C, including DevOps, CloudOps, contractors and vendors. Own digital strategy, data management and security compliance.
- Founded a Software Engineering Center of Excellence in Laramie, Wyoming, and onboarded a new engineer every two weeks for 18 months.
- Partnered with the University of Wyoming on AI research for personalized in-flight entertainment and passenger services.
- Launched an SDK, APIs and a virtual hardware platform so partners can build next-generation IFEC apps.

Chief Product Officer & Co-founder · azarc.io

Irvine, California · Feb 2021 – Jun 2023

Technology and advisory company for global logistics and supply chains.

- Built the Utility Trade Platform for post-Brexit customs declarations on EU goods moving through the UK. Cost per declaration fell by over 70%.
- First to market in a $4.5B+ addressable market of 9,000 brokers and 180,000 traders.
- Shipped a digital-twin app for final-mile optimization worth $2.4M a year in savings per warehouse.
- Helped create a global digital supply-chain ecosystem with Diageo, Colgate-Palmolive and Dell through the Digital Supply Chain Institute.

Chief Technology Officer · Black Swan Data

London, UK · Jan 2014 – Sep 2020

Machine learning and AI that let major brands predict consumer trends from real-time social data.

- Scaled the company from 12 to 240+ employees and to profitability, alongside the board and executive team.
- Pitched angel and VC investors through seed, Series A and Series B, including £9.2M raised in 2016.
- Architected a multi-tenant machine-learning and data platform processing 50 million messages a day.
- Ran self-service SaaS products generating over $10M ARR.
- Co-created products with PepsiCo, Disney, Harley-Davidson and Twitter.
- Grew the Aviation business unit from $2M to $8M in one year through partner and reseller deals.
- Led a 50+ person technology team across three continents and introduced Spotify-style tribes.

Senior Engineering Manager · Panasonic Avionics

Lake Forest, California · Nov 2009 – Dec 2013

Standardized IFE platform that let airlines personalize content, maps, games, shopping and ads.

- Managed 150+ software engineers delivering IFE applications.
- Partitioned the IFE software stack so airlines could deploy updates without further DO-178B certification.
- Worked with Google and Panasonic HQ in Osaka to certify Android on IFE seat monitors.
- Built edge solutions with universities and open source that doubled on-board sales and cut airline connectivity costs by $120K+ per aircraft per year.

Principal Software Architect · Rockwell Collins

Cedar Rapids, Iowa · Earlier career

Software architect for aerospace and US government programs.

- Embedded, safety-critical avionics software under DO-178B, with every requirement traced in Telelogic DOORS.

AWARDS & RECOGNITION

2017 **APEX Best IFE Innovation.** Black Swan Data, with IAG and Massive, for LEVEL Portal.

2015 **#1, Sunday Times Sage Start-up Track 15.** Black Swan Data ranked Britain's fastest-growing start-up.

PATENTS

2021 **Provisional patent application.** US 63/147,101, anomaly detection in distributed workflows.

EDUCATION

Bachelor of Science, Computer Science · South Dakota School of Mines & Technology

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