FACT SHEET · EVERY ITEM IS ON THE PUBLIC RECORD AT RAPHAELCOSTA.COM/RECORD

Raphael Garcia da Costa

Software engineer, inventor and founder. Co-founder & CTO of Sentinel AI and SensusAir; founder of Hashtag AI Labs; creator of The Ledger Method. Based in Johannesburg; born in Rio de Janeiro; building software since 2006.

Ventures

2010 –	**Hashtag AI Labs**, founder: AI engineering lab
2015 –	**FinTech ledger**, engineering & architecture lead: 20M+ customers, 70+ countries
2019 –	**Sentinel AI**, co-founder & CTO: dust, silica and haul-road intelligence for mining (DustScout, RoadScout AI, VoltScout AI)
2020 –	**SensusAir**, co-founder & CTO: indoor air intelligence in the USA, South Africa, UK, Australia and the Philippines
Ongoing	**AI4DFuture**, founder: non-profit mentorship and AI labs

Patent

2023	**ZA 2021/10088** granted: *Environmental Management System*
2020	**WO 2020/250007** (PCT/IB2019/054841) published

Research (SSRN)

Dec 2021	Sodium Lignosulphonate as Dust Suppressant for Dust Control in Mines
Jun 2023	AI-Enabled Indoor Air Quality Monitoring for Fungi Energy
Feb 2025	AI-Driven Air Quality Assessment Report for an Industrial Vacant Warehouse
Jun 2025	AI-Enabled Indoor Air Quality Monitoring: A Comprehensive Trial Test Study

Education

Current	MSc Artificial Intelligence, University of Hull
2025	Executive Education, AI in Healthcare, Harvard Medical School
2025	Machine Learning Specialization, Stanford · DeepLearning.AI
2020–21	Data Science with Python, University of Cape Town

Awards & recognition

2026	Innovation Excellence Award 2026
2025	GHP Innovation Excellence Award (SensusAir)
2025	Best Environmental Risk Management & Disease Prevention Specialists, USA (SensusAir)
2025	Best Air Quality Solutions Provider, South Africa (SensusAir)
2025	Leading Innovators in Environmental Intelligence for Mining (Sentinel AI)
2025	Outstanding Contribution to Industrial ESG Innovation (Sentinel AI)
2015	SWIFT Innotribe Semi-Finalist, Growth Stage (GreenModel®)
—	Section 11D R&D recognition, Government of South Africa (Sentinel AI)
—	NVIDIA Inception Program member (Sentinel AI)

Stages

2026	APIC 2026 Annual Conference, USA
2026	Le Bonheur Children's Hospital, Memphis
2026	University of Guelph CESRF, Canada
2026	St. Luke's Medical Center, Philippines
2025	Healthcare Innovation Summit Africa: *When Air Becomes Data*
2025	APIC 2025 Annual Conference, Nashville
2025	African Mining Week, South Africa
2024	APIC Conference, Baptist Memorial Hospital, Memphis

Press

Sep 2025	Bizcommunity · Mining Business Africa · IT News Africa