

Tanuj Aravind Duraisamy

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EDUCATION

University of Essex

Expected May 2028

BSc Computer Science

Colchester, UK

- Year 1 average: **83.5%** (First Class standard); ranked top of class
- Coursework: Algorithms, Data Structures, Computer Systems & Architecture, Artificial Intelligence, Databases, OOP, Discrete Mathematics, Linear Algebra, Probability & Statistics

EXPERIENCE

Julie – AI Personal Assistant personalassistant.julievoiceai.com

2026 – Present

Solo Founder

India / London

- Started as multilingual AI voice agents for SMBs, used by **10+ businesses in India**; integrated speech recognition, LLM reasoning, text-to-speech and telephony into real-time workflows
- Identified that low-cost labour capped the B2B automation case and pivoted to consumers
- Built an agentic Android assistant that turns a single natural-language request into executed actions across calls, contacts, Google Calendar and the browser, acting on the user's behalf rather than just answering
- Implemented Google OAuth, device integrations and provider routing; private Android early access for **30+ users**

Zenvex – B2B Pipeline Recovery Platform zenvex.io

Feb 2026 – Sept 2026

Solo Founder

Remote

- Built SaaS detecting stalled sales opportunities across HubSpot, Apollo and Instantly, scoring recovery likelihood and triggering automated re-engagement; used by **50+ SDR agencies**, acquired entirely through organic content
- Developed backend infrastructure with **NestJS, PostgreSQL, Prisma, Redis and BullMQ**; implemented asynchronous CRM-processing workflows
- Implemented OAuth 2.0 for HubSpot/Apollo and validated API-key authentication for Instantly with diagnostics and error handling
- Built revenue-leak detection for duplicate records, stale pipeline stages and metric drift
- Ran customer discovery with RevOps practitioners that shifted positioning from pipeline visibility to deal recovery

Government College of Technology

May 2023 – June 2023

Technical Intern – Systems & Infrastructure

Coimbatore, India

- Documented network topology and server-monitoring infrastructure for institutional IT serving **1,000+ students**

PROJECTS

Retrace – Self-Correcting Agent Layer | Python, LLM APIs, CLI

2026

retrace.zenvex.io

- Shipped terminal-installable developer tooling that adds a self-correction loop to any codebase, implementing the *Reflexion* architecture (Shinn et al., NeurIPS 2023)
- Agents execute, evaluate failures, store natural-language reflections in episodic memory and retry with prior context

Scripelle – Open-Source AI Writing System | TypeScript, React, LLM APIs

2025 – 2026

github.com/TanujDuraisamy/Scripelle

- Built a full-stack long-form writing environment with context-aware generation and prompt/context-control pipelines for sparse-input reliability

Embedded Audio Synthesizer | Raspberry Pi, Linux, C, Audio DSP

2024

- Built a real-time synthesizer; traced **12 ms** latency to buffering/thread scheduling and tuned execution for stable output

Tabu Search vs Hill Climbing in Genetic Algorithms | Python, NumPy, scikit-learn

2023

- Built a binary-encoded genetic algorithm with pluggable Tabu search and Hill Climbing heuristics and Gaussian-controlled mutation rates
- Benchmarked both across **1,000 runs** in 10 mutation-rate batches on execution time and accuracy; found Tabu's edge marginal (40% vs 39.6% average win rate) and sensitive to mutation rate

TECHNICAL SKILLS

Languages: Python, TypeScript, JavaScript, Java, C, SQL

Frameworks: Next.js, React, NestJS, Node.js, FastAPI, Flask

Data & Infrastructure: PostgreSQL, Prisma, Redis, BullMQ, Celery, Docker, Linux, Git, OAuth 2.0

AI / Data: LLM APIs, agent systems, NumPy, pandas, scikit-learn, pytest

Design: Figma, UI/UX design, design systems, prototyping, brand identity, motion and launch video

Creative: Signed recording artist with Sony Music India; seven years of music production and creative direction