

CTT Computational Engine Business Plan

Resonance-Based Computing API Venture

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Developed Independently in Singapore, 2024

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1 Executive Summary

CTT Computational Engine is a personal venture owned by Americo Simoes, offering a cloud-based API leveraging Convergent Time Theory (CTT), a proprietary resonance-based computational framework developed independently in Singapore in 2024. The API approximates quantum-hard problems (e.g., optimization, prediction, simulation) with classical hardware efficiency, without requiring quantum infrastructure. Currently hosted on Render as a functional cloud server, the platform delivers millisecond-latency solutions via endpoints like `/api/v1/solve`.

The quantum-inspired computing market is projected to grow from \$5 billion in 2025 to \$50 billion by 2030 (McKinsey, 2024; Statista, 2025). CTT-Engine aims to capture 0.1% (\$5 million ARR) by Year 3 through licensing the technology while retaining full copyright, as the academic community remains unaware or dismissive of CTT. Licensing eliminates competition until mainstream adoption, at which point copyright may be relinquished.

Vision: Commercialize CTT as a leading resonance computing service. **Mission:** License the API for solving complex problems in finance, pharma, logistics, and AI. **Objectives:** Secure \$2 million seed funding to scale infrastructure, achieve 100 beta users in Month 1, and \$500K ARR in Year 1. **Funding Needs:** \$2 million seed for server scaling, marketing, and IP protection.

2 Company Overview

CTT Computational Engine is a personal venture owned by Americo Simoes, operating as a cloud server with full copyright on all CTT equations and implementations. Developed independently in Singapore in 2024, the technology remains proprietary, with licensing as the primary business model. The copyright will be maintained until CTT gains mainstream scientific recognition; until then, exclusive licensing prevents competition.

- **Owner:** Americo Simoes (Inventor, 100% ownership).
- **Legal Structure:** Sole proprietorship (transition to LLC upon funding).
- **Location:** Singapore-based development, remote operations.
- **History:** Independently developed in 2024 as a prototype cloud server on Render. Initial beta testing with 50 users via personal networks.
- **Goals:** Launch licensed API service in Q4 2025, achieve \$500K ARR in Year 1, and form CTT Inc. with investor funding.
- **IP Protection:** All CTT equations copyrighted ©Americo Simoes 2024. Licensing agreements ensure exclusivity.

3 Industry Analysis

The quantum-inspired computing sector is exploding, with resonance-based methods like CTT filling the gap between classical and quantum systems.

- **Market Size:** Quantum computing market \$5 billion in 2025, growing to \$50 billion by 2030 (CAGR 40%, McKinsey, 2024). Quantum-inspired software segment \$779 million in 2023, reaching \$2.51 billion by 2030 (Grand View Research, 2024). Enterprise quantum computing \$1 billion in 2025, \$125 billion by 2030 (Statista, 2025).
- **Trends:**
 - Hybrid classical-quantum tools for cost-effective simulations.
 - Demand for API-first platforms in finance (risk modeling) and pharma (drug discovery).
 - Rise of proprietary IP in emerging tech, with licensing models dominating until mainstream adoption (e.g., CRISPR before 2018).
- **Key Players:** IBM Qiskit, AWS Braket, Google Cirq (focus on hardware-dependent quantum). CTT-Engine fills the gap with resonance-based, hardware-agnostic solutions.
- **Growth Drivers:** AI integration, regulatory needs for fast optimization, and skepticism toward quantum hardware readiness (Gartner, 2025).

4 Competitive Analysis

CTT-Engine's resonance framework provides classical efficiency for quantum-hard problems, with copyright protection enabling exclusive licensing.

Table 1: Competitor Comparison

Competitor	Strengths	Weaknesses	CTT Advantage
IBM Qiskit	Quantum hardware access	\$0.10/call, hardware dependency	Classical ms latency, \$0.01/call
AWS Braket	Cloud scalability	Complex setup, high costs	Simple API, resonance patterns
Google Cirq	ML integration	Limited to true quantum	Proprietary CTT equations, copyright-protected

USP: Exclusive licensing of copyrighted CTT technology; no hardware required; resonance patterns for unique analytics. Market positioning: Affordable alternative for RD, with IP protection ensuring competitive moat until mainstream.

5 Marketing Plan

Strategy focuses on developer acquisition and enterprise licensing, leveraging IP exclusivity.

- **Target Audience:**
 - Developers/RD (25-45, tech hubs like Singapore, SF).
 - Enterprises in finance (e.g., DBS Bank), pharma (e.g., Novartis).
- **Marketing Strategy:**
 - Content: Blogs on CTT vs. quantum (Medium, LinkedIn; \$5K budget).
 - SEO: Keywords "resonance computing API" (5K searches/month, SEMrush, 2025).
 - Social: X campaigns (CTTComputing, QuantumInspired; 10K followers Year 1).
- **Sales Strategy:** Freemium for developers; direct licensing to enterprises (demos, NDAs).
- **Pricing:**
 - Free: 1,000 calls/month.
 - Pro: \$99/month, 10,000 calls.
 - Enterprise: \$999/month, unlimited + custom licensing.
- **Promotion:** \$50K Year 1 budget for ads (Google Ads, X); partnerships with Render/AWS; Q2B conference (\$10K booth).

6 Operations Plan

Cloud server operations with focus on IP-protected licensing.

- **Structure:** Render-hosted API; scale to AWS Lambda (\$100/month).
- **Resources:** Cloud servers, SQLite for cache; legal for IP licensing.
- **Supply Chain:** No physical; dependent on Render/AWS hosting.
- **Quality Control:** 99.9% uptime; automated tests; IP audits.
- **Technology:** Python/FastAPI backend; NumPy/SciPy for CTT equations.

7 Management Team

Sole owner with plans for expansion.

- **Owner/Founder:** Americo Simoes, inventor of CTT (developed in Singapore, 2024).
- **Roles:** Full-stack development, IP management; advisors for business scaling.

- **Advisory:** [Quantum expert from Singapore University].

8 Financial Plan

Detailed projections with costings and estimates.

- **Startup Costs (Year 1):**
 - Hosting (Render Pro): \$1,200/year.
 - Marketing (Ads, Content): \$50,000.
 - Legal (IP Licensing Agreements): \$10,000.
 - Development Tools: \$5,000.
 - Total: \$66,200.
- **Revenue Projections:**
 - Year 1: \$500K (200 users, \$2,500 ARPU).
 - Year 2: \$2M (800 users).
 - Year 3: \$5M (2,000 users).
- **Expenses:**
 - Year 1: \$300K (hosting \$1.2K, marketing \$50K, legal \$10K, operations \$238.8K).
 - Year 2: \$800K (team hires \$400K).
 - Year 3: \$1.5M (scaling \$500K).
- **Break-Even:** Month 18 at \$25K/month revenue.
- **Funding Needs:** \$2M seed (50% marketing, 30% operations, 20% IP/legal).
- **Ratios:** Gross margin 80%, ROI 300% by Year 3.

Table 2: Financial Projections (2026-2028)

Year	Revenue	Expenses	Net Profit
2026	\$500,000	\$300,000	\$200,000
2027	\$2,000,000	\$800,000	\$1,200,000
2028	\$5,000,000	\$1,500,000	\$3,500,000

9 Appendix

- **References:**
 - McKinsey & Company, “Quantum Technology Monitor 2024,” <https://www.mckinsey.com/featured-insights/the-rise-of-quantum-computing>.
 - Statista, “Global Quantum Computing Market Size, 2025-2030,” <https://www.statista.com/statistics/938717/global-quantum-computing-market-s>

- Grand View Research, “Quantum Computing Software Market, 2023-2030,”
<https://www.grandviewresearch.com/industry-analysis/quantum-computing-software-market>
- Gartner, “Forecast: SaaS Market, Worldwide, 2023-2028,” 2025.
- **Technical Specs:** CTT equation: $\Psi(t) = \int_0^1 e^{-\xi^2} \psi(t, \xi) d\xi$. API endpoint: <http://localhost:8080/api/v1/ctt>.
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- **Legal:** All CTT technology copyrighted; licensing agreements available upon
 NDA.