

## Contact

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www.linkedin.com/in/  
arunkumarramanan (LinkedIn)  
deepbrainz.com (Company)  
arunkumarramanan.github.io  
(Portfolio)  
arunkumarblog.medium.com (Blog)

## Top Skills

Machine Learning  
Deep Learning  
Python

## Languages

English (Full Professional)  
Tamil (Native or Bilingual)  
Kannada (Native or Bilingual)  
Hindi (Elementary)  
Telugu (Elementary)

## Certifications

Game Theory, University of British  
Columbia, Stanford University  
Operating Systems  
Introduction to Programming  
(Python)  
Mathematics (Linear Algebra,  
Calculus, Statistics, and Probability)  
Lean Technology Strategy:  
Economic Frameworks for Portfolio  
and Product Management

## Honors-Awards

Yuvasri Kala Bharathi Award  
Best Student of the Year 2006-07  
Kaggle Master  
Won Medal for the rank 62nd/465  
in Google AI's Inclusive Images  
Challenge on Kaggle  
Won Medal for the rank 90th/521 in  
iMet Collection 2019 - FGVC6 on  
Kaggle

# Arunkumar Venkataramanan

Research Scientist (AGI) · Reasoning & Alignment | Founder, CEO  
& CPTO @ DeepBrainz AI & Labs | Agentic AI Systems & World  
Models

Greater Bengaluru Area

## Summary

Research Scientist in Artificial General Intelligence (AGI), focused on reasoning, safety, and alignment across large language and foundation models. Deep expertise in ML engineering, optimization, and large-scale AI systems across research, training, evaluation, inference, and real-world deployment of generative and agentic AI.

Founder, CEO, and Chief Product & Technology Architect at DeepBrainz AI (DPIIT-recognized), building DeepBrainz-R (reasoning-first models) and Lexopedia AI, an agentic workforce for research, engineering, and knowledge execution. Innovator and serial entrepreneur; co-founder of a stealth AI research startup.

## Technical & Research Depth

### Modeling & Training:

- LLMs & SLMs, Transformers, MoE, Diffusion models & diffusion-LLMs (DDPM, LDM, DiT, Flow Matching; MDLM, BD3)
- Hybrid architectures (SSM, Mamba, attention-state unification)
- Pre-training, post-training, alignment & preference optimization (RLHF, RLAIF, RLVR, GRPO)
- Test-time scaling, inference optimization, evaluation & safety

### Learning Paradigms:

- Representation learning, self-supervised & unsupervised learning
- Reinforcement learning & human-centered AI
- PEFT, LoRA, efficient adaptation & deployment

## Engineering & Systems

### Core Stack:

- Python, NumPy, PyTorch & JAX ecosystems
- TensorFlow, Keras, scikit-learn, XGBoost

## Publications

The Product Thinking Playbook

Large Scale Distributed Machine Learning (Deep Learning) Systems

Universal Bot: Conversational AI Chatbot with Generative Language Models and Deep Reinforcement Learning

Universal Language: Natural Language Processing with Python through Deep Learning

Hands-on Generative AI (LLMs) and Deep RL with Python

## Frameworks:

- Hugging Face (Transformers, Diffusers, TRL)
- Megatron-LM, DeepSpeed, NVIDIA NeMo
- vLLM, SGLang, TensorRT, NVIDIA Dynamo
- MCP, A2A, ADK, OpenXLA

## Platforms & Infra:

- Kubeflow, MLflow, Spark
- Cloud-native across GCP (Vertex AI, Cloud TPU), AWS, Azure

## Affiliations & Ecosystem

- NVIDIA Inception · TPU Research Cloud · OpenAI Forum
- Microsoft for Startups (Level 4) · Google Cloud Technology Partner
- AWS Partner
- MIT Technology Review Insights · HBR Ascend
- Python Software Foundation (Contributor, Board nominee)
- Kaggle Legacy Master · YC SUS · F6S Alpha Founder

## Background & Leadership

Alumnus of Anna University and Cambridge School. Leadership grounded in zero-to-one execution, product strategy, systems thinking, OKRs, and capital-efficient scaling — backed by strong mathematical, statistical, and computational reasoning.

Interests span philosophy, psychology, emotional intelligence, decision theory, cognitive science, and emerging technologies.

## Mission

Mission-driven to democratize frontier intelligence and translate AGI research into safe, scalable, defensible systems with long-term societal impact. Known for translating first-principles AGI research into systems that are useful, aligned, and deployable in the real world.

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## Experience

## DeepBrainz AI

Founder, CEO, Chief Product and Technologist (CPTO)

November 2019 - Present (6 years 4 months)

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- Founder & Chief Architect for reasoning-first AI infrastructure, leading the design of autonomous, agentic systems built for production reliability rather than benchmark-centric demos.
- Established the core thesis that reasoning is a trained, controllable system behavior — explicitly engineered, constrained, and evaluated under real-world cost, latency, and safety constraints.
- Building reasoning-first enterprise AI systems coordinating model architecture, evaluation, infrastructure, and MLOps end-to-end; currently focused on DeepBrainz-R and Lexopedia AI.
- Designed and trained small, efficient reasoning-first models optimized for agentic workflows, inference-time scaling, and predictable operational behavior in production.
- Architected AI systems with predictable behavior, economics, and latency by tightly coupling model design, evaluation strategy, and deployment infrastructure.
- Translated frontier AGI research into deployable, defensible AI infrastructure powering enterprise and customer-facing agentic systems.
- Defined product vision and go-to-market strategy for frontier AI offerings, translating research-grade capabilities into scalable, production-ready platforms.
- Operate end-to-end across research, systems architecture, engineering, and product, grounding first-principles AGI research in real-world deployment constraints.
- Shipped and iterated agentic AI systems with real enterprise users, incorporating deployment feedback, failure analysis, and customer-driven constraints into system design.

## DeepBrainz Labs (Stealth)

Founding Research Scientist

July 2023 - Present (2 years 8 months)

- Conducting frontier AGI research focused on reasoning, safety, and alignment, including superalignment-oriented investigations.
- Designing and training foundation models across LLMs, multimodal systems, Transformers, Diffusion models, and hybrid architectures.

- Working across the full training stack including pre-training, post-training, instruction tuning, optimization, and inference with emphasis on reliability and evaluation.

## Stealth Startup

Co-Founder (Research | Engineering | Product)

April 2022 - Present (3 years 11 months)

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- Co-founding a consumer AI product in stealth integrating foundation models into user-facing intelligent systems.
- Leading research, engineering, and product design for AI-native workflows including agentic copilots and intelligent search and answering systems.
- Exploring scalable applications of Generative AI across select consumer domains with strong focus on usability and product-market fit.

## MIT Technology Review

MIT Technology Review Global Panelist (A panel member)

December 2020 - August 2023 (2 years 9 months)

I volunteered in this role as a panel member

A member of the MIT Technology Review Global Panel, an exclusive forum of thought leaders, innovators, and executives, and have my say on the major tech trends of the day.

As a panelist, I'm asked to take part in executive surveys conducted by MIT Technology Review Insights and share my expertise on a wide range of technology topics and research initiatives.

I receive access to the survey results and specially prepared news and analysis to inform business strategy.

And I have the chance to attend senior-level gatherings held the world over.

<https://www.linkedin.com/groups/13872538>

## Python Software Foundation

A PSF Board Nominee - Contributing Member

January 2020 - February 2022 (2 years 2 months)

A Contributing Member of Python Software Foundation PSF (Official Python) Community. 2X PSF Board Member Nominee.

Harvard Business Review  
HBR Ascend Select Member  
February 2020 - January 2021 (1 year)  
I was volunteering in this role.

HBR Ascend Select is an exclusive and an invite-only community of aspiring leaders, handpicked by HBR Ascend.

As a member, I get the opportunity to share my views and opinions with the editorial, marketing, and product teams of HBR Ascend.

I also participate in various research projects led by HBR Ascend.

Stealth Startup  
Founder and Research Engineer  
June 2016 - October 2019 (3 years 5 months)  
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- Led early-stage AGI-oriented R&D across deep learning, reinforcement learning, computer vision, NLP, and generative models.
- Transitioned research prototypes into production-grade AI systems, laying the technical foundation for what later became DeepBrainz AI.
- Designed an early AI cloud platform enabling data ingestion, model training, deployment, and operationalization with minimal ML expertise.

Independent Software Development Contracts  
Independent Consultant — ML Systems  
July 2015 - September 2019 (4 years 3 months)  
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- Delivered end-to-end AI/ML systems for clients across data engineering, model development, deployment, and product integration.
- Architected distributed machine learning systems and cloud-native platforms for scalable AI applications.
- Advised founders and product teams on ML-driven product strategy, system design, and technical execution.

Kaggle  
Independent ML Engineer (Machine Learning Practitioner)  
March 2016 - April 2019 (3 years 2 months)

- Competitive ML practitioner with top-tier performance in large-scale Kaggle competitions.

- Specialized in model development, evaluation, and optimization for computer vision and structured prediction tasks.
- Mentored practitioners and contributed to open ML communities through kernels, discussions, and code.

## GitHub

### Independent Software Architect (Data & ML)

June 2013 - April 2016 (2 years 11 months)

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- Worked as a technical program manager and software architect on data-intensive and ML-driven systems.
- Contributed to and led open-source projects, collaborating with distributed engineering teams.
- Built and evaluated machine learning models for real-world computer vision and NLP applications.

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## Education

### Anna University Chennai

Bachelor of Technology - BTech, Information Technology · (2009 - 2013)

### Indian Institute of Management Bangalore

Online Certificate Courseworks - IIMBx, Entrepreneurship/Entrepreneurial Studies · (2020 - 2020)

### Stanford University

Independent Coursework, Artificial Intelligence, Machine Learning, Deep Learning for NLP and CV, Robotics with Deep RL

### Massachusetts Institute of Technology

Independent Coursework, Algorithms and Programming, Deep Learning for Self Driving Cars, and Artificial General Intelligence

### Harvard University

Independent Coursework, Computer/Information Technology Administration and Management