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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 Venkataraman

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.

Experience

DeepBrainz AI

Founder, CEO, Chief Product and Technologist (CPTO)

November 2019 - Present (6 years 4 months)

Greater Bengaluru Area

- 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)

Greater Bengaluru Area

- 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)
Greater Bengaluru Area

- 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.

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