

EKJOT SINGH

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ekjotsingh.com

EDUCATION

Vellore Institute of Technology

Bachelor of Technology - B.Tech, Computer Science

Vellore, India

Sep 2024 – Sep 2028

- CGPA: 9.07 / 10.0

- Specialized in Artificial Intelligence and Systems Engineering.

- Relevant Coursework: Distributed Systems, Advanced Algorithms, Operating Systems, Neural Networks.

EXPERIENCE

Metanthropic AI

Founder & Lead Systems Architect

Remote

Nov 2025 – Present

- Architecting an independent AGI research lab; pioneered a deterministic reasoning framework that reduces hallucination rates in LLMs by enforcing strict logic constraints during inference.
- Engineered high-throughput training pipelines using PyTorch and Custom CUDA kernels, optimizing GPU utilization for large-scale transformer models.
- Developed novel “Intrinsic Safety” scaling laws, bridging biological intuition with digital reasoning to create mathematically bounded AI systems.
- Spearheaded a distributed research team, establishing CI/CD workflows for reproducible ML experiments and model versioning.

Tealbase

Founder & Principal Engineer

Remote

Aug 2025 – Present

- Designed and implemented a high-performance, open-source BaaS (Backend-as-a-Service) mirroring Firebase’s DX but built on the robustness of PostgreSQL and Go.
- Engineered a Change-Data-Capture (CDC) system to power realtime websocket subscriptions, handling thousands of concurrent connections with sub-100ms latency.
- Implemented an automated REST API generation engine that parses Postgres schemas to instantly provision typed endpoints, reducing boilerplate code by 90%.
- Architected enterprise-grade security middleware featuring JWT-based auth and row-level security (RLS) to ensure multi-tenant data isolation.

PROJECTS

The Digital Boardroom | Python, FastAPI, Multi-Agent Systems

Dec 2025

- Engineered a multi-agent consensus engine orchestrating “Blind Peer Reviews” between GPT-4, Claude 3.5, and Gemini Pro to eliminate single-model stochasticity.
- Developed a “Chairman” synthesis module that aggregates divergent reasoning paths into a single high-fidelity output, improving reasoning accuracy on complex tasks.
- Optimized API orchestration latency using asynchronous task queues to handle parallel agent inferences.

Azhn | TypeScript, Node.js, SVG

Aug 2025

- Developed a high-performance rendering engine that compiles HTML/CSS directly into scalable SVGs, eliminating the need for headless browser snapshots.
- Implemented server-side rendering optimizations for Open Graph image generation, reducing generation time by 40% compared to Puppeteer-based solutions.

Buttery-Auth | Node.js, MongoDB, Docker

Jul 2025

- Engineered a containerized authentication microservice supporting OAuth 2.0, Magic Links, and secure session management.
- Implemented automated JWT rotation and secure cookie handling to mitigate XSS and CSRF attacks.

TECHNICAL SKILLS

Languages: Rust, Go, Python, C++, Java, TypeScript, SQL (PLpgsql), Elixir

Core Competencies: Distributed Systems, Systems Architecture, High-Performance Computing, API Design

AI & ML: PyTorch, CUDA, TensorFlow, Transformers, Mechanistic Interpretability, Scikit-Learn

Infrastructure: Docker, Kubernetes, Redis, PostgreSQL, Nginx, Linux/Unix

Web Technologies: Next.js, React, Tailwind CSS, Framer Motion, WebSockets

PUBLICATIONS & WRITING

Dataset Distillation for the Pre-Training Era (2025): Proposed Linear Gradient Matching to condense massive datasets, optimizing pre-training efficiency.

The Platonic Representation Hypothesis (2025): Research note analyzing the convergence of diverse foundation models towards shared latent representations.