

# DANIEL SAM PETE THIYAGU

[danielsamfdo.github.io](https://danielsamfdo.github.io)

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## Professional Experience

### Senior Software Engineer, Media Understanding Team, Meta

(07/2025 - Present)

- **End-to-End Project Ownership:** Led the technical design, infrastructure, and successful US launch of "Tune Your Algorithm" (TYA) on Instagram in under six months, taking the feature from inception through public testing to full production.
- **Massive User Engagement:** Accelerated product adoption to 1.1% of all US Reels DAU within weeks of launch, driving a 30% week-over-week increase in daily TYA reel impressions.
- **Next-Gen Prototyping:** Developed the technical blueprint for Incremental Bio to save capacity of 65% GPUs

### Machine Learning Engineer, Core-ML Team, Google

(06/2023-07/2025)

- Led the design and development of **LLM-powered Prompt Optimization** systems used by 20+ product areas, delivering a **30% performance improvement** via AI-driven tuning, rewriting, and re-ranking strategies. Extended prompt optimization to **multimodal inputs** including images and video, supporting a diverse range of GenAI tasks.
- Built tools for **AI-powered metaprompting** to automate prompt generation and rewriting, accelerating workflows and enabling **synthetic example generation** for enhanced few-shot prompting.
- Launched **Prompt Iterative Developer Journeys** and **Prompt Execution APIs**, powering LLM automation pipelines and integration in Search Review workflows.
- Applied advanced techniques such as **Chain-of-Thought**, **Self-Consistency**, and **Few-Shot Prompting**, alongside **benchmarking frameworks** to evaluate LLM performance and regressions.
- Founding engineer of **PromptLab**, prototyping AI agents with tool invocation, reasoning-based prompt chaining, and a scalable **Prompt Gallery** for prompt reuse and experimentation.
- Fine-tuned **Gemini models** on medical-domain datasets to improve instruction quality in healthcare use cases.
- Enabled GenAI-powered features for the **AI Content Safety** team, reducing review effort and improving takedown efficiency.
- Spearheaded infrastructure for **Prompt Execution Storage**, and led production efforts in **Security, Privacy, and Compliance** for enterprise LLM deployments.

### Software Development Engineer, Core Team Google, Sunnyvale

(03/2020-05/2023)

- Designed and deployed an **A/B classifier evaluation framework**, supporting model calibration and rollout for image and video content moderation systems.
- Integrated algorithms like **PhotoDNA**, fuzzy matching, and hash-based detection to boost system accuracy and scalability for takedowns.
- Owned and operated the **AI + Human hybrid review pipeline** for abusive content in image and video search, reducing takedown times from days to minutes. Improved automation and reduced redundancy in human reviews, saving **10% in operational resources**

## Awards and Achievements

- Won 25+ Peer awards & Spot cash awards for excellent work in Google & Intuit
- Won **Core Impact Award at Google** along with team for actionable reporting to NCMEC along with team mates in Child Safety.

## Education

- University of Massachusetts Amherst, Master of Science, Computer Science, GPA of **3.9/4.0** (09/2016 – 05/18)
- College of Engineering Guindy, Anna University, Bachelor of Engineering, Computer Science and Engineering, with a CGPA of **9.39/10.0** (07/2010 – 05/2014)