VIKRANTH BABU TIRUMALA CHETTY

Applied AI & ML Leader (LLM Systems & ML Decisioning)

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KEY ACHIEVEMENTS

$53M incremental GMV
Bidding science and architecture for eBay Seller Funded Ads across ~20K seller campaigns.

Top-two click share
Moved Brand Expedia from 3rd/4th to a sustained top two on Google Hotel Ads, holding ROAS targets as the channel grew ~9×.

LLM judge at ~90% P/R
Automated evaluation matched to human reviewers; pre-vetted ~5,000 generated messages.

LLM product in production
Owned eBay's customer-facing listing-description LLM on vLLM in three markets.

SKILLS

AI Systems
LLMs in production (vLLM), LLM evaluation and LLM-as-a-judge, RAG and multi-agent design

ML & Decisioning
Bidding and budget allocation, ranking and recommendation, personalisation, NLP

Experimentation
A/B and Bayesian testing, elasticity, unit economics

Leadership
Hands-on technical leadership, hiring and coaching, PRDs and launch criteria

Technical
Python, SQL, PySpark, PyTorch, XGBoost, Databricks, AWS

EDUCATION

M.S. Industrial & Systems Engineering
University of Washington
2013 - 2015 | Seattle, WA

B.Tech. Electrical Engineering (Minor in OR)
Indian Institute of Technology Madras
2007 - 2011 | Chennai, India

PUBLICATIONS / PATENTS

Journal of Global Optimization, 2016: bandwidth packing with queueing delays

US Patent 8,868,406 B2 (Avaya), first-named inventor, 2014

IEEE COMSNETS, 2011: topic models for communication services

eBay patent application, accepted for filing

SUMMARY

Applied AI and ML leader with eleven years taking ML and generative AI systems into production at Expedia Group and eBay, and most recently for Skyscanner. Leads teams hands-on: guided seven scientists across the US, UK and China whilst staying close to the modelling, evaluation and code. Generative AI work spans a customer-facing LLM product owned in production, evaluation systems with an LLM judge, and multi-agent design and prototyping. Decisioning depth in bidding and budget allocation, ranking and personalisation, and A/B and Bayesian experimentation.

EXPERIENCE

Principal AI Consultant

Vihive Labs Ltd | 2026 - Present | London, UK

Company director · Solution designer · Hands-on sole builder

- **Hotel Ads Bidding System:** Took a new prediction-based bidding system for Skyscanner from concept to three live A/B tests as sole builder.
- **Modelling & Pipeline:** Built a PyTorch model for hotel-level cost-per-click bidding and the supporting ML pipeline.
- **Handover:** Delivered a methodology paper, notebooks and demo, which the in-house team used to launch its tests; documented a build-ready next phase.
- **Spend-Elasticity Targets:** Turned global elasticity and ROAS goals into market-level thresholds, adopted into Product reporting.

Senior Manager, Applied Research

eBay | 2021 - 2026 | London, UK

Senior Manager, Applied Research (2023) · Manager, Applied Research (2021)

Team lead (3 direct reports) · Agile Tech Lead · De facto product owner · Hands-on builder

- **Team Leadership:** Led an extended team of up to 7 scientists across the US, UK and China; set roadmaps, metrics and launch criteria for 20+ ML initiatives.
- **Description Prefill:** Owned a customer-facing LLM in production for listing descriptions (US, UK and DE) served on vLLM. Consolidated three regional models into one multilingual model.
- **RAG Redesign:** Prototyped RAG offline, grounding descriptions in catalogue data; authored the PRD that helped reopen the initiative.
- **C2C Seller Messaging:** Took it from PRD to a live A/B test in three months; matched human-written copy on click-through rate.
- **LLM Evaluation:** Built a rubric, human annotation and an LLM judge matching reviewers at ~90% P/R; pre-vetted ~5,000 messages for Responsible AI sign-off.
- **Seller AI Copilot:** Co-authored the vision and PRD; designed multi-agent listing management with sub-agent, API and tool specs.
- **Memory Hackathon:** Won the company-wide hackathon (~50 entries) as part of a four-person team, with a multi-agent intent-inference prototype.
- **Seller Funded Ads:** Designed the bidding science and architecture: $53M incremental GMV across ~20K campaigns.
- **PLA Similarity Search:** Led the team's model to +1.24% iGMB after pivoting from a bidding approach with no scalable gain.
- **Best Price Items:** Led the team's model for a dedicated paid-marketing campaign: +3.8% iGMB.
- **Title Rewrite:** Led the team's title-rewriting model, adding 500K+ daily Shopping impressions.

Senior Manager, Data Science

Expedia Group | 2015 - 2021 | Seattle, WA / London, UK

Senior Manager (2020) · Senior Data Scientist (2018) · Tech Lead (2017) · Data Scientist (2015)

Hands-on builder · Line manager (2 reports) · Tech lead · Product owner, ML platform (2018)

- **Google Hotel Ads Bidding:** Built and ran bidding as the channel's sole data scientist; set daily bids for ~500K hotels across 30 markets.
- **Prediction-Driven Bidding:** Co-developed revenue and cost predictions; designed the architecture and built the optimisation layer.
- **Share of Voice:** Moved Brand Expedia from 3rd/4th to a sustained top-two click share as the channel grew ~9×.
- **Marketing ML Platform:** As tech lead, moved bidding onto the company platform across four brands; added channels and migrated to AWS.
- **Platform Vision:** As product owner in 2018, defined the roadmap towards a general-purpose marketing ML platform.
- **Bayesian Experimentation:** Established sampling, evaluation and results-analysis infrastructure, later built into the platform.
- **Cancellation Forecast:** Led the post-COVID rebuild for Finance as technical and implementation lead, through to production release.

ADDITIONAL EXPERIENCE

T-Mobile, Statistician Intern (2014) · IIM Ahmedabad, Research Associate (2012–13) · Juniper Networks, Software Engineer II (2011–12) · Avaya Labs, Research Intern (2010)