

Ali K. Thabet

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EXECUTIVE SUMMARY

Senior AI research and engineering leader specializing in large-scale generative media systems, image and video foundation models, production AI infrastructure, and inference optimization. Led multiple frontier generative AI initiatives at Meta spanning real-time image generation, video foundation models, post-training systems, and large-scale deployment infrastructure powering Meta AI, Instagram, Facebook, WhatsApp, and Meta's advertising platforms. Proven track record building high-performing research organizations and driving research-to-production AI systems serving millions of users globally.

CORE EXPERTISE

Generative AI • Image & Video Generation • Diffusion Models • Flow Models • Post-Training • Inference Optimization • Media Foundation Models • AI Infrastructure • Research Leadership • Production AI Systems • Computer Vision • 3D Vision • Model Distillation • Evaluation Systems • Cross-Functional Leadership

PROFESSIONAL EXPERIENCE

Meta — Senior AI Research Scientist Manager

Sep 2024 – Present

Menlo Park, USA

Lead of the Generative AI Media Post-Training team focused on developing production-ready image and video generation systems powering creator experiences across Meta platforms.

Lipsync on Meta AI

- Led the end-to-end development and deployment of Meta AI's production lipsync generation system enabling images to sing to music using state-of-the-art generative video models.
- Directed an 8-person research team and coordinated execution across product engineering, infrastructure, PM, legal, and privacy organizations.
- Built evaluation and quality frameworks for large-scale human and character lipsync generation.
- Delivered one of the industry's leading AI lipsync systems, serving several million completed requests per day and driving a 7% increase in Meta AI sharing metrics.

MovieGen Product Integration

- Directed the post-training and productionization of MovieGen-based image-to-video (I2V) and video-to-video (V2V) systems deployed across Meta AI, Instagram, Facebook, WhatsApp, and Meta's advertising platforms.
- Led a 25-person cross-functional organization spanning research, product engineering, infrastructure, legal, privacy, and PM teams to operationalize frontier generative video models for production use cases.
- Built production-ready post-training, evaluation, and deployment pipelines enabling large-scale rollout of generative video capabilities across Meta product surfaces.
- Drove deployment of production generative video systems contributing to significant increases in Meta Ads revenue while balancing model quality, latency, safety, and infrastructure constraints at scale.

Meta — AI Research Scientist Manager

Aug 2021 – Sep 2024

Zurich, Switzerland

Lead of the Generative AI Media Efficiency team focused on accelerating inference and reducing deployment costs for state-of-the-art image and video generation systems.

Imagine Flash

- Led the technical strategy and end-to-end execution of Imagine Flash, Meta's real-time image generation system integrated into Meta AI and WhatsApp.
- Directed a cross-functional research and engineering effort spanning model architecture, evaluation systems, and production infrastructure for real-time generative media.
- Delivered the project from research to production in approximately four months, establishing Meta as an industry leader in real-time image generation and generative media efficiency.
- Work was publicly featured through Meta AI research and product launches.

MovieGen Efficiency

- Led the efficiency workstream for the MovieGen family of frontier video generation foundation models.
- Directed a 6-person research team focused on reducing generation latency from tens of minutes to seconds for large-scale video generation systems.
- Defined the technical architecture for MovieGen's efficiency pipeline and coordinated execution across the broader MovieGen organization.
- Built evaluation and benchmarking systems for generative video efficiency and quality, contributing to state-of-the-art video generation systems deployed in both research and production environments.

King Abdullah University of Science and Technology (KAUST) — Research Scientist, Visual Computing Center

May 2018 – Jul 2021

Saudi Arabia

Built and led a 10-person computer vision and deep learning research organization composed of PhD students, postdoctoral researchers, and junior research scientists.

- Directed research initiatives spanning computer vision, deep learning, 3D vision, action recognition, and scene understanding in collaboration with academic and industrial partners.
- Published research in leading AI conferences including CVPR, ICCV, ECCV, NeurIPS, ICML, and ICLR.

Fig — Co-Founder & CTO

Jan 2016 – Aug 2017

Beirut, Lebanon

Directed company technology strategy and platform development.

- Designed and implemented machine learning systems for inventory estimation and operational intelligence.
- Built the company's technical infrastructure and engineering workflows.

King Abdullah University of Science and Technology (KAUST) — Integrative Activities Specialist

Dec 2014 – Dec

2016

Saudi Arabia

Developed data-driven frameworks supporting university funding and entrepreneurship strategies.

- Built machine learning systems evaluating startup and entrepreneurial outcomes.
- Mentored startups through incubation and acceleration programs.

King Abdullah University of Science and Technology (KAUST) — Postdoctoral Fellow, Visual Computing Center

Jul 2012 – Dec

2014

Saudi Arabia

Conducted research in computer vision and machine learning with a focus on 3D vision, scene understanding, and deep learning.

- Worked on industrial research collaborations including adaptive heat harvesting systems with SABIC.

SELECTED PUBLICATIONS

- Polyak, A., et al. "Movie Gen: A Cast of Media Foundation Models." arXiv (2024)
- Kohler, J., Pumarola, A., Schoenfeld, E., Sanakoyeu, A., Vajda, P., Thabet, A. "Imagine Flash: Accelerating Emu Diffusion Models with Backward Distillation." (2024)
- Shaul, N., Singer, U., Chen, R.T., Le, M., Thabet, A., Pumarola, A., Lipman, Y. "Bespoke Non-Stationary Solvers for Fast Sampling of Diffusion and Flow Models." ICML (2024)
- Du, Y., Kips, R., Pumarola, A., Starke, S., Thabet, A., Sanakoyeu, A. "Avatars Grow Legs." CVPR (2023)
- Rojas, S., Zarzar, J., Pérez, J., Sanakoyeu, A., Thabet, A., Pumarola, A., Ghanem, B. "Re-ReND." ICCV (2023)
- Pumarola, A., Sanakoyeu, A., Yariv, L., Thabet, A., Lipman, Y. "VisCo Grids." NeurIPS (2022)
- Qian, G., Hammoud, H., Li, G., Thabet, A., Ghanem, B. "ASSANet." NeurIPS (2021)
- Li, G., Muller, M., Thabet, A., Ghanem, B. "DeepGCNs: Can GCNs Go as Deep as CNNs?" ICCV Oral (2019)

PATENTS

- Stylizing Animatable Head Avatars. U.S. Patent Application 18/411,615 (2024)
- Full Body Motion Tracking for Use in Virtual Environment. U.S. Patent Application 18/411,623 (2024)

EDUCATION

University of Dundee — Dundee, United Kingdom
PhD in Computer Science

2006 – 2010

American University of Beirut — Beirut, Lebanon
BEng in Electrical Engineering

2001 – 2006

LANGUAGES

English — Fluent
Arabic — Native
Spanish — Fluent