Dr. Mahdi Kazempour

Senior AI Engineer | End-to-End AI Systems

Contact

Phone: +971 54 530 1145
Email: mail@mahdikazempour.me
LinkedIn: linkedin.com/in/mahdikazempour/
Website: mahdikazempour.me
Scholar: Google Scholar Profile

Summary

Senior AI Engineer with 10+ years of deep-tech experience across academic research and deep-tech startups, specializing in end-to-end AI systems from research to production.

Hands-on experience training and fine-tuning models and integrating them into application-level systems, spanning LLM-based systems, multimodal models, computer vision, 3D reconstruction, AI automation, and retrieval-augmented generation (RAG), with scalable full-stack deployment on Azure and AWS for specific industry verticals.

Strong background in electrical engineering, optics, and high-performance computing (HPC), with 20+ peer-reviewed publications and experience as a named inventor on patent-pending AI technologies.

Demonstrated product ownership and technical leadership, including leading small teams and aligning engineering execution with product and business objectives

Core Skills

- **AI & Machine Learning:** Artificial Intelligence, Machine Learning, Deep Learning, End-to-End AI Systems, Research-to-Production AI, Model Training and Fine-Tuning, Multimodal Models, Large Language Models (LLMs), Retrieval-Augmented Generation (RAG), Diffusion Models, Generative Models
- **Vision, 3D & Graphics:** Computer Vision, 3D Reconstruction, Neural Rendering, Computer Graphics, 3D Gaussian Splatting (3DGS), NeRF-based Methods, Texture Optimization, Inverse Rendering, Augmented Reality (AR)
- **Cloud, Infrastructure & Systems:** Azure, AWS, GPU Computing, Distributed Training, Scalable Inference Systems, Model Serving Pipelines, Vector Databases, Cloud-Native System Design
- **Engineering & Programming:** Python, TypeScript, JavaScript, Node.js, C++, MATLAB, Fortran, Systems Engineering, API Design, Full-Stack AI Systems, High-Performance Computing (HPC)

- **Automation, Data & QA:** AI Automation, Workflow Automation (n8n), Dataset Curation, Data Pipelines, Experiment Tracking, Automated Evaluation Pipelines, AI Quality Assurance
- **Product & Technical Leadership:** Product-Oriented Engineering, Research Roadmapping, Technical Strategy, End-to-End Ownership, Cross-Functional Collaboration, Team Leadership, Mentorship

Experience

MKMM (Dubai, UAE) *September 2025 – Present*
Founder — Marketing Management & Applied AI Systems (Contracting Vehicle)

- Founded a Dubai-licensed marketing management entity used as a formal contracting and consulting vehicle for senior individual-contributor engagements.
- Provided strategic, analytical, and technology-enabled marketing management, including system oversight, data-driven analysis, and operational decision support.
- Designed and implemented AI-enabled internal tools and automation to support marketing operations, analytics, customer workflows, and reporting.
- Applied application-level AI techniques including LLM-based tools, retrieval-augmented generation (RAG), data pipelines, and workflow automation to improve efficiency and operational visibility.
- Operated with full ownership across problem definition, system design, technical execution, vendor coordination, and management-level decision support.

artlabs (LA, US) *February 2022 – December 2025*
Co-founder & Chief Research & Development Officer (until Dec 2025)
Shareholder (ongoing)

- Led research-to-production execution for AI-driven 3D, computer vision, and multimodal systems used in immersive commerce applications.
- Owned end-to-end AI system design, including data generation, model training and fine-tuning, evaluation, deployment, and long-term system operation.
- Acted as a named inventor on patent-pending AI technologies and translated research-grade ideas into scalable, production-grade systems.
- Led and mentored small multidisciplinary research and engineering teams while remaining hands-on with core technical systems.
- Worked closely with product and business leadership to align R&D direction with commercial objectives, timelines, and operational constraints.

Diner (Istanbul, Turkey) *July 2019 – February 2022*
Co-founder, Chief R&D Officer

- Built and scaled an AR-powered restaurant menu platform serving over 1 million monthly active users.
- Owned system architecture, product iteration, deployment, and operational scaling.
- Pivoted the technology and team toward what later became artlabs under the same corporate structure.

Koç University (Istanbul, Turkey) *August 2014 – December 2020*
PhD Researcher, Electrical Engineering

- Conducted research in the Optical Microsystems Laboratory (OML) as part of the ERC Advanced Grant (ERC-AdG) funded Wear3D project.
- Focused on computational holography, optical systems, and high-performance computing, resulting in 20+ peer-reviewed publications.

CY Vision Inc. (CA, USA) *September 2016 – May 2019*
Core Engineer

- Contributed to the development of computational holographic display systems in an industry R&D environment funded by Intel Capital and Vestel.
- Worked on optical system design, algorithm development, and system-level integration.

Bilkent University (Ankara, Turkey) *January 2012 – July 2014*
MSc Researcher, Electrical Engineering

- Worked on algebraic acceleration techniques and high-performance computing solutions for large-scale electromagnetics problems.
- Collaborated with Abakus Computing Technologies on applied scientific computing projects.

Education

Koç University, Istanbul, Turkey *2014 – 2021*
PhD in Electrical Engineering (Optical Microsystems Laboratory), CGPA: 4.00/4.00

Bilkent University, Ankara, Turkey *2012 – 2014*
MSc in Electrical Engineering (Computational Electromagnetics), CGPA: 3.97/4.00

Sharif University of Technology, Tehran, Iran *2007 – 2011*
BSc in Electrical & Electronics Engineering (Communications), CGPA: 3.67/4.00

Publications

Patent & Recent Work

- **Sparse2D-to-3D High Fidelity 3D Model Generation from a Few Images with Multi-view Diffusion for eCommerce**,
  Dogancan Kebude, Ugur Yekta Basak, Seyedmahdi Kazempourradi. *NVIDIA GTC 2025.*
- **System and Method for Dynamic Generation and Rendering of Three-Dimensional Objects from Two-Dimensional Images**,
  S. Kazempourradi, D. Kebude, U. Basak, S. Demircan. *US Patent Application, 2025.*

Augmented Reality, Display Technologies & Holography

- Full-Color Computational Holographic Near-Eye Display,
  S. Kazempourradi, E. Ulusoy, H. Ürey. *Journal of Information Display, 2019.*
- Wide Field-of-View Dual-Focal-Plane Augmented Reality Display,
  U.Y. Başak, S. Kazempourradi, E. Ulusoy, H. Ürey. *Advances in Display Technologies IX, 2019.*
- Dual Focal Plane Augmented Reality Interactive Display with Gaze-Tracker,
  U.Y. Basak, S. Kazempourradi, C. Yilmaz, E. Ulusoy, H. Ürey. *Continuum, 2019.*
- Micro-Mirror-Array Based Off-Axis Flat Lens for Near-Eye Displays,
  S. Kazempourradi, Y.S. Yaras, E. Ulusoy, H. Ürey. *Optics Express, 2019.*
- Next Generation Augmented Reality Displays,
  K. Hedili, E. Ulusoy, S. Kazempourradi, S. Soomro, H. Ürey. *IEEE Sensor, 2018.*
- Full-Color Foveated Three-Dimensional Holographic Near-to-Eye Display,
  S. Kazempourradi, B. Soner, E. Ulusoy, H. Ürey. *11th Int. Symposium on Display Holography, 2018.*
- Fast Computer-Generated Hologram Computation Using Rendered Depth Map Image,
  S. Kazempourradi, E. Ulusoy, H. Ürey. *Practical Holography XXXI, SPIE, 2017.*

Electromagnetics & High-Performance Scientific Computing

- Algebraic Acceleration and Regularization of the Source Reconstruction Method with the Recompressed Adaptive Cross Approximation,
  M. Kazempour, L. Gürel. *IEEE APSURSI, 2014.*
- Fast Solution of Electromagnetic Scattering Problems with Multiple Excitations Using the Recompressed Adaptive Cross Approximation,
  M. Kazempour, L. Gürel. *IEEE APSURSI, 2014.*
- Solution of Low-Frequency Electromagnetics Problems Using Hierarchical Matrices,
  M. Kazempour, L. Gürel. *CEM'13, 2013.*

Awards & Achievements

- Ranked 9^{th} in the University Admission Exam among 500,000 + participants *(2006).*
- Awarded full scholarships for BSc, MSc, and PhD studies *(2006–2021).*
- Secured multiple grants (e.g., TÜBİTAK BiGG) *(2021)*
- Raised funding from leading VCs. *(2021-Present)*
- Participated in top-tier accelerators including KWORKS, ERA NYC, Polygon Village, and Alchemist. *(2021-Present)*

Featured in the Press

Recognized extensively for innovation and impact in 3D and AR solutions for e-commerce, retail, and immersive technology sectors.

Global Recognition: Featured in 15+ leading technology and business publications, including:

- **Forbes Turkey** – Forbes Startup 2025: (Article Link)
- **Webrazzi** – Metaverse-focused 3D and AR platform artlabs raises $700K investment: (Article Link)
- **Milliyet** – Standing out in e-commerce with 3D technology: (Article Link)
- **FintechFit** – artlabs brings future technology to today: (Article Link)
- **Habertürk** – artlabs is rapidly increasing its value: (Article Link)
- **eGirişim** – artlabs providing 3D and AR experiences for e-commerce and metaverse receives $700K investment: (Article Link)
- **Yapay Zeka Fabrikası** – The future of online shopping with artlabs: (Article Link)
- **Ekopara** – artlabs: Next-generation 3D and AR platform: (Article Link)
- **Efeler Haber** – artlabs and the future of 3D technology: (Article Link)
- **Startup Borsa** – No-code 3D and AR platform artlabs: (Article Link)
- **IST Star Mag** – A new era in digital shopping with artlabs: (Article Link)
- **Bizimizmir** – artlabs and the future of online shopping: (Article Link)
- **Egia Dyarın** – artlabs: AR technology in online shopping: (Article Link)
- **Koç KWorks** – artlabs offering metaverse-focused 3D solutions: (Article Link)
- **Digital Age** – Deep technology: The future of commerce with artlabs: (Article Link)