Contact

nima.gbani@gmail.com

www.linkedin.com/in/nghorbani (LinkedIn)
nghorbani.github.io/ (Personal)

Top Skills

OpenCV
Pattern Recognition
Image Processing

Languages

German (Professional Working)
French (Elementary)
Azari Turkish (Native or Bilingual)
English (Full Professional)

Certifications

Machine Learning
GRE
Quantum Computing with Qiskit Ultimate Masterclass
Computational Investing
Cryptography I

Publications

AMASS: Archive of Motion Capture as Surface Shapes
hSMAL: Detailed Horse Shape and Pose Reconstruction for Motion Pattern Recognition
SOMA: Solving Optical Marker-Based MoCap Automatically
GRAB: A Dataset of Whole-Body Human Grasping of Objects
Expressive Body Capture: 3D Hands, Face, and Body from a Single Image

Nima Ghorbani

Head of Artificial Intelligence at Sporttotal Technology GmbH
Ulm, Baden-Württemberg, Germany

Summary

I am an avid learner, researcher, engineer, and solution designer in the field of computer vision and graphics.
My interests and expertise span:

Deformable body models for animals and humans (including expressive faces and hands)

Accurate 3D body reconstruction from single-frame and time-sequence data (image, video, marker-based motion capture)

Deep learning for computer vision and graphics.

Experience

SPORTTOTAL TECHNOLOGY GmbH
2 years 5 months

Head of Artificial Intelligence
September 2024 - Present (11 months)
Berlin, Germany

Principal Computer Vision Engineer
March 2023 - September 2024 (1 year 7 months)
Berlin, Germany

At Sporttotal Technology, we develop AI-powered systems for fully automated sports broadcasting, immersive content generation, and advanced sports analytics. My work spans real-time object detection and tracking on edge devices, human pose estimation, 3D body reconstruction, and identity tracking for sports productions and analytics. Additionally, I contribute to texture generation from sparse image samples using optimization techniques and diffusion-based inpainting, enabling high-fidelity 3D game reconstructions and interactive viewing experiences.

Kaia Health
Applied Research Scientist

April 2022 - March 2023 (1 year)
Munich, Bavaria, Germany

Kaia Health is a digital therapeutics company that leverages AI-powered computer vision to deliver real-time, personalized musculoskeletal care through a smartphone camera. I focused on researching and developing core machine learning models for 3D human pose estimation, motion analysis, and real-time feedback generation. My work enabled accurate human body tracking and automated movement assessments, ensuring users receive guided, AI-driven physical therapy without the need for wearable sensors.

Max Planck Institute for Intelligent Systems
Research Engineer
February 2018 - April 2022 (4 years 3 months)
Tübingen Area, Germany

I contributed to the development of foundational human body models and large-scale datasets that have significantly advanced the fields of 3D human reconstruction and motion analysis. I worked on SMPL-X, an expressive human body model, and AMASS, a dataset that unifies marker-based motion capture data with parametric body models for large-scale learning. Leveraging these datasets, I helped develop VPoser, a body pose prior facilitating robust 2D-to-3D human body lifting in SMPLify-X. Additionally, I worked on GRAB, a generative model for human grasping, and SOMA, a framework for synthetic data generation to train deep neural networks for human-object interaction understanding.

Center for Integrative Neuroscience
MSc. Student
June 2017 - November 2017 (6 months)
Germany

Title of Master Thesis: Generative Human Motion Modeling with Deep Probabilistic Neural Networks

Superpipe International
R&D Engineer
April 2013 - March 2015 (2 years)
Tehran Province, Iran

I led a team of two engineers to implement an open-source ERP software at SPI, based on a tech stack of Python, PostgreSQL, and CSS/HTML. My work involved close collaboration with diverse departments such as finance, HR, warehouse, and inventory to integrate their processes into the ERP. I was

supervised by the operational processes department to ensure that industry standards were adapted and integrated into the ERP software for the best implementation impact.

Tashil Gostar Co

R&D Engineer

September 2010 - March 2013 (2 years 7 months)

Tabriz, Iran

Developing/Implementing Enterprise Resource Planning Software

Education

University of Tübingen

Master of Science - MS, Neural Information Processing · (2015 - 2017)

Azad University (IAU)

BSc., Electrical Engineering · (2007 - 2011)