# Hamed Karimi

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- 10+ years of experience in machine learning, data science, and software engineering.
- 7+ years of experience designing and implementing deep learning models.
- 7+ years of experience developing machine learning pipelines for training and evaluating on large-scale datasets.
- 10+ peer-reviewed publications in high-impact ML conferences and neuroscience journals.

## Professional Experiences

**Social & Computational Cognitive Neuroscience Lab** — Boston College, MA
*PhD Candidate* — 2021-2026

- Benchmarked video foundation models against cortical visual processing.
- Developed and optimized multi-GPU pipelines for training deep neural networks on a high-performance cluster.
- Published 3 peer-reviewed papers (70+ citations), including a *Journal of Neuroscience* cover feature and *NeurIPS* workshops (Google Scholar).
- Mentored and taught undergraduate student.

**Cengage Group** — Boston, MA
*Data Science Intern* — 2022

- Implemented an AWS pipeline to store, transcribe, and analyze 25M+ customer service calls.
- Built NLP models on call data to generate actionable insights that lead to a sales guide and playbook, driving a 15% sales increase in the pilot group.

**Cognetivity Neurosciences Ltd.** — London, UK
*Machine Learning Research Intern* — 2020–2021

- Developed machine learning models on visual cognitive task data to detect mild cognitive impairment (MCI) and early Alzheimer's disease (AD), achieving classification performance on par with expert clinical assessments.
- Established and benchmarked the first dataset of visual cognitive task responses for MCI and AD patients, enabling reproducible evaluation of ML approaches.

**Pinket** — Tehran, Iran
*Data Scientist* — 2020

- Built an ML model to predict store item availability, minimizing customer orders to less than 1% for out-of-stock products in stores lacking inventory databases.

**System Group** — Tehran, Iran
*Full Stack Software Engineer* — 2019-2020

- Built and maintained Enterprise Resource Planning (ERP) software with .NET.

**Royan Institute** — Tehran, Iran
*Research Assistant* — 2017-2021

- Analyzed large-scale EEG/fMRI data to study the temporal dynamics of neural activity in patients with mild cognitive impairment.
- Published 11 peer-reviewed papers, including widely reported findings on delayed information processing speed in dementia.

**Youtab Games** — Tehran, Iran
*Founding Game Developer* — 2016-2017

- Designed, developed, and published two cross-platform arcade games on Android and iOS.

## Skills

**ML/DL/RL packages**
- Pytorch, scikit-learn, Webdatasets, OpenAI Gymnasium

**DL architectures and algorithms**
- CNN, RNN, LSTM, Transformer, LLM, GAN, Diffusion, GNN, RAG

**Programming tools and languages**
- Python, C++, C#, React Native, JavaScript
- SQL
- Git, Docker, Kubernetes

**Cloud Computing**
- AWS

## Honors and Awards

- Boston College Donald White Teaching Excellence Award, 2024
- Best paper award at Iranian Symposium on Brain Mapping Updates, 2019
- 7th place in Asia regional contest, ACM-ICPC, West Asia Site, Tehran, Iran, 2014
- 2nd place in National RoboCup Contest, 2D Soccer Simulation, Tehran, Iran, 2010

## Education

**Ph.D.**, Brain and Cognitive Sciences (GPA 3.96)
Boston College, Boston, MA

**M.Sc.**, Computer Science
Amirkabir University of Technology, Tehran, Iran

**B.Sc.**, Computer Science University of Tehran, Tehran, Iran

## Contact Info

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