HAMIDREZA HASHEMPOOR

Research Scholar - Computer Science & Engineering

CONTACT

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Github

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EDUCATION

PhD - Computer Science (Probabilistic Generative Models) — **2025.12- ...**
University of Stuttgart - Stuttgart - Germany

MSc - Electrical & Computer Engineering (Machine Learning and Information Theory) — **2020.9 - 2023.2**
Seoul National University - Seoul - Korea

BSc - Electrical & Computer Engineering (Control Systems) — **2015 - 2020**
University of Tehran - Tehran - Iran

WORK EXPERIENCE

Machine learning engineer [Senior Researcher] — **2023-Present**
Pintel , Seoul

Computer vision applications. Dealing with SOTA detectors and trackers for traffic data and camera Networks. Multi thread system handling.

Machine learning engineer [Junior Researcher] — **2019**
Cafe Bazzar, Tehran

Creating data pipe-lines and analysing the neural network models.

PROJECTS

Vision Applications — **2023-Present**
Tool: C++, Python, Torch-TensorFlow

Implementation of vision pipelines in my company and working with various detector and tracker modules. Multi thread system handling and camera network is another aspect of job.

Advanced Statistics — **2022-Present**
Tool: Python

Implementation of statistical concepts including MLE, Fisher information, Asymptotic analysis, Biased and unbiased estimators, Shrinkage estimators, HMM, MC and other sampling, GMM and exponential families, Poisson regression, Bootstrapping, Empirical Bayes.

SKILLS

- **Python** — 7+ yrs
- **C++** — 7+ yrs
- **Torch and Tensorflow** — 7+ yrs
- **MATLAB** — 7+ yrs
- **GIT** — 5+ yrs
- **Linux** — 5+ yrs
- **Web Development** — 3+ yrs
- **R** — 3+ yrs

ACHIEVEMENTS

Best Paper Award

Best paper award in Korean Telecommunication Conference.
2022

SNU Scholarship

Selected as a Talented foreigner student for MS program in SNU.
2020

Physics Olympiad

Honor Diploma recipient in the 27th Iranian National Physics Olympiad.
2014

TOEFL

105(25,28,24,28)/120
2024

Advanced Deep Learning **2021-Present**
Tool: Python, Torch-TensorFlow

Implementation of advanced concepts of deep learning including Generative models (GAN and variational structure families), Probabilistic Approach to Embedding, Transfer Learning using EfficientNet, Sentiment Analysis with BERT, Unsupervised Representation Learning, SimCLR, Contrastive Predictive Coding, Downstream tasks analysis.

PUBLICATIONS

Structured Temporal Inference in State-Space Models **AISTATS 2026**

Hamidreza Hashempoor

Dada-Assisted Channel Estimation and Detection with Deep Conditional Generative Networks **TMLCN 2025**

Hamidreza Hashempoor, Wan Choi

Code PDF

Gated Inference Network: Inferencing and Learning State-Space Models **Neurips 2024**

Hamidreza Hashempoor, Wan Choi

PDF

GaussianNet: Data-Assisted Channel Estimation with Deep Gaussian Networks **KICS 2022**

Hamidreza Hashempoor, Wan Choi

PDF

Deep-LfD: Deep robot learning from demonstrations **Impacts 2021**

F Zhong, **Hamidreza Hashempoor**, K Nazari Sasikolomi, A Ghalamzan Esfahani

PDF

Glance-MCMT: A General MCMT Framework with Glance Initialization and Progressive Association **Preprint 2025**

Hamidreza Hashempoor

Code PDF

FastTracker: Real-Time and Accurate Visual Tracking **Preprint 2025**

Hamidreza Hashempoor, Yu Dong Hwang

Code PDF

FeatureSORT: Essential Features for Effective Tracking **Preprint 2025**

Hamidreza Hashempoor, Rosemary Koikara, Yu Dong Hwang

PDF

A data-set of piercing needle through deformable objects for Deep Learning from Demonstrations **Preprint 2020**

Hamidreza Hashempoor, Kiyanoush Nazari, Fangxun Zhong, Amir Ghalamzan E.

PDF