Nahid Nasiri

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LinkedIn | Google Scholar | GitHub

Summary

A skilled machine learning engineer with strong experience in both research and real-world projects, currently working at Audi. Adaptable ML engineer with a proven track record of delivering intelligent solutions that meet both technical and business objectives. Combines deep technical expertise with hands-on implementation to build robust, real-world systems. Often trusted to improve how things work, guide technical decisions, and help teams reach their goals faster and more efficiently.

Work Experience

Machine Learning Engineer 5/2023 - present
Audi of America | San Jose CA, USA

- Designed computer vision systems for traffic scenario detection using object detection (YOLOv5), scene classification (Places365), and semantic segmentation (DeepLabV3).
- Applied data augmentation techniques to improve model robustness and generalization across diverse driving conditions.
- Performed hyperparameter optimization to enhance model accuracy and efficiency on real-world automotive datasets.
- Processed large-scale in-vehicle video datasets to train and evaluate vision-based perception models.

Electrical and Computer Engineering Teaching Assistant - PhD 9/2019 - 3/2025
University of California, Santa Cruz CA, USA

- Engineering Technologies in Biology and Healthcare (ECE80B), Machine Learning Basics (CSE40), Capstone (HCI271), Game AI (CM146), Introduction to Data Mining (CSE145)

Electrical and Computer Engineering Research Assistant - PhD 9/2019 - 3/2025
University of California, Santa Cruz CA, USA

- Designed and evaluated deep learning models (LSTM, encoder-decoder, CNN) for predicting user behavior from multimodal sensor data (pressure, gyroscope, accelerometer).
- Demonstrated the predictive power of fidgeting behavior in ADHD diagnosis and severity estimation.
- Applied autoencoder-based denoising to improve PET image quality, increasing signal fidelity by 15% over baseline.

Research/Teaching Assistant - PhD Student 9/2017 - 7/2019
Istanbul Technical University | Computer Engineering Department Istanbul, Turkey

- Implemented and trained a high-level decision-making algorithm for ADAS using a deep reinforcement learning algorithm

Senior Software Developer and Project Lead 9/2014 - 7/2017
Istanbul Sehir University | Computer Engineering Department Istanbul, Turkey

- Intelligent Serious Games for Social and Cognitive Competence at Istanbul Sehir University | ISG4
- Led Istanbul Sehir University's team in Intelligent Serious Games for Social and Cognitive Competence project partnered by universities and companies from Belgium, Bulgaria, Hungary, Slovenia, and Turkey, funded by the European Commission (Erasmus+ Program)

- Developed games for children with special needs and embedded AI models inside the games (European Union funded project)

Computer Engineer, Software Developer 10/2010- 9/2014
Sharif University of Technology R&D Center | ATA Co. Tehran, Iran

- Developed software and applications for companies.

Education

PhD in Electrical and Computer Engineering 9/2019 – 3/2025
University of California, Santa Cruz | GPA: 4/4 CA, USA
Title of PhD Thesis: Extracting Implicit Features from Hand Fidgeting in ADHD Using Machine Learning

PhD Student in Computer Engineering (Transferred to UCSC) 9/2017 – 9/2019
Istanbul Technical University | GPA: 3.8/4 Istanbul, Turkey
Research: Enhancing Image-Based Machine Learning Models through Advanced Training Techniques

Master of Science in Computer Engineering 9/2014 – 9/2017
Istanbul Sehir University | GPA: 3.94/4 **(Best Student Award)** Istanbul, Turkey
Thesis: A serious game for children with speech disorders and hearing problems

Bachelor of Science in Computer Engineering 9/2006 – 9/2010
Iran University of Science and Technology **(2nd Best Senior-level Student)** Tehran, Iran

Technical Skills

- **Languages & Tools**: Python, MATLAB, Git, Jupyter, VS Code
- **ML/DL Libraries**: PyTorch, TensorFlow, Keras, Scikit-learn, NumPy, Pandas
- **Deep Learning**: CNNs, LSTMs, Transformers, Autoencoders, GANs, Transfer Learning, Hyperparameter Tuning
- **Computer Vision**: O bject Detection (YOLOv5), Scene Classification (Places365), Semantic Segmentation (DeepLabV3), Video Processing
- **Cloud & Infra**: Kubernetes, Nautilus, UCSC Hummingbird, Google Colab

Honors and Awards

- Won University Fellowship Award, 2019-2020, with an acceptance rate of less than 15%.
- Graduate Research/Teaching Assistantship, 2020-2025, with an acceptance rate of less than 20%.
- Received a European Union scholarship for a Master's degree in Turkey (2014–2017) for ranking 1^{st} among computer engineering students.
- 2^{nd} best student in the computer engineering department for the last year of the undergraduate program.

Selected Publications

- **Nasiri** et al., "Extracting the Affective Content of Fidgeting in Adults With ADHD via Machine Learning" in 2024 CHI Conference on Human Factors in Computing Systems (CHI)
- **Nasiri** et al., "A Deep Learning Approach to Correctly Identify the Sequence of Coincidences in Cross-Strip CZT Detectors" in Medical Imaging 2021: Physics of Medical Imaging (SPIE)
- **Nasiri** et al., "Measuring Performance of Children With Speech and Language Disorders Using a Serious Game," in 2017 IEEE International Symposium on Medical Measurements and Applications (MeMeA)
- **Nasiri** et al., "A Serious Game for Children With Speech Disorders and Hearing Problems" in 2017 IEEE 5th International Conference on Serious Games and Applications for Health (SeGAH)