Contact

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(LinkedIn)

Top Skills

Agentic AI

Reinforcement Learning

Large Language Models (LLM)

Languages

Russian (Elementary)

Spanish (Elementary)

English (Full Professional)

Persian (Native or Bilingual)

Arabic (Elementary)

Patents

Robotic control using natural
language commands

Natural language statistical model
with alerts

Natural language statistical model
with workspaces

Systems and methods for ontology
matching

Time series data to statistical natural
language interaction

Sina Ehsani

Lead AI Engineer at Armada | PhD
Seattle, Washington, United States

Summary

Senior AI Engineer with deep expertise in Deep Learning, NLP,
and Multimodal Learning. I specialize in building and fine-tuning
advanced neural models—including LLMs, Generative AI, and
Reinforcement Learning.

With a strong research background, several patents, and multiple
publications, I remain deeply engaged in AI research. I'm passionate
about solving real-world problems through innovation and actively
contribute to open-source and collaborative AI initiatives.

Experience

Armada
Senior AI Engineer
July 2023 - Present (2 years 1 month)
Seattle, Washington, United States

As a Senior AI Engineer, I lead the design and deployment of advanced AI
solutions for complex industrial applications, focusing on creating scalable,
efficient, and impactful systems.

- Lead the development of a prescriptive intelligence platform for complex
industrial processes, improving overall efficiency by a projected 4.5%. Utilize
advanced ML and optimization, and leverage LLMs to translate complex data
into actionable, natural language insights for operators.
- Architected a scalable agentic AI routing system where our distilled models
outperform large proprietary systems by over 10% and are optimized for edge
deployment.
- Pioneered OPUS, an LLM framework to control robotic camera systems with
natural language, achieving 20% higher task accuracy than large proprietary
models.
- Led a continental-scale geospatial analysis of the Starlink network,
correlating 870,000+ hours of terminal data with weather events to predict and
model service degradation.

- Mentored and trained interns and junior AI engineers, leading multiple high-impact projects from conception to delivery.

American Airlines
Data Scientist
August 2022 - July 2023 (1 year)

I had the opportunity to lead the development of a deep neural network forecasting engine for predicting flight-level traffic. We utilized a multimodal neural network approach that enhances prediction accuracy using historical and multi-dimensional data. This model was tested across multiple flight routes to gauge its adaptability to demand trends. I guided a team of four, fostering collaboration in refining and evaluating our machine learning models.

Truveta
Machine Learning Postdoctoral Researcher
May 2022 - August 2022 (4 months)
Seattle, Washington, United States

- Worked on data-driven NLP approaches to support the company's vision of Saving Lives with Data.
- Pre-trained and Fine-tuned Large Language Models (LLM) on clinical text data, for up-stream and down-stream tasks.

redshred
Data Scientist Research
January 2022 - May 2022 (5 months)
Washington DC-Baltimore Area

Developed and trained transformer-based segmentation and object detection methods for document understanding using HuggingFace framework.

University of Arizona
5 years 10 months

Graduate Research Assistant - Multimodal Deep Learning
August 2019 - May 2022 (2 years 10 months)
Tucson, Arizona Area

· Applying Computer Vision (CV) techniques to Natural Language Processing (NLP) tasks. Utilizing both text and associated image data to enhance machine Question Answering performances.
· Large Language Models, object detection models (like Faster RCNN), and CNN models are some of the building blocks used in the design of this multimodal deep learning network

Teaching Assistant
January 2019 - January 2021 (2 years 1 month)

· Survey of Optimization Methods

. Introduction to Engineering Probability and Statistics.

. Statistical Quality Control.

Graduate Research Assistant - Machine Dialog System
May 2018 - August 2019 (1 year 4 months)

Natural language processing techniques were used to develop a smartphone app that can hold a meaningful conversation with the user by simulating human speech behaviors. The project's data was based on real-world events such as personal life events, relationships, experiences, as well as desires, hopes, and dreams.

Graduate Research Assistant - ML for Health Care
August 2016 - May 2018 (1 year 10 months)

Various unsupervised machine learning approaches were studied in order to uncover hidden relationships between physiological characteristics of patients with traumatic brain injury.

redshred
Data Scientist Research
March 2021 - August 2021 (6 months)

For PDF plot-processing problem, deep learning model research and development, including multi-modal systems with text and vision components, were used.

Tucson Airport Authority
Student Consultant
August 2016 - January 2017 (6 months)

· Conducted an economic impact study of the Tucson International Airport (TUS).

· Gathered and analyzed relevant data from all airport tenants and affiliated businesses. Created a business proposal for TUS business process improvement and amelioration of economic growth of the city.

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Education

University of Arizona

Doctor of Philosophy - PhD, College of Engineering - Mutimodal DeepLearning · (2018 - 2023)

University of Arizona

Master of Science - MS, Computer Science · (2020 - 2022)

University of Arizona

Master of Science - MS, College of Engineering · (2016 - 2018)

Isfahan University of Technology

Bachelor of Science - BS, Department of Applied Science · (2015)