Nima Dindar Safa

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LinkedIn GitHub

Enthusiastic researcher looking for a position in a reputable academic institution where I can utilize my research and coding skills for the growth of the institution while enhancing my professional skills

Education

University of Tehran Tehran, Iran • 2018 – 2023
B.Sc. Physics GPA: 3.45/4.0

- Relevant Courses
Quantum information and computation (20/20) – Programming C++ (19.8/20) – Bachelor's project (19.25/20) – Quantum Mechanics (19.49/20) - Mathematical Physics I (16.75/20) – Mathematical Physics II (16/20)

- Relevant Online Courses
Machine Learning (Androw Ng) – MIT introduction to Deep Learning (Alexander Amini) – Natural Language Processing Specialization (Coursera/DeepLearning.ai) – Introduction to Algorithms (MIT Open Courseware)

Research And Projects

Boson Sampling and RBM University of Tehran • 2021 – 2022

During regular meetings with my supervisor, I reviewed the papers about implementations of Deep Learning in quantum physics for rebuilding quantum states. I Proposed an experiment to use Restricted Boltzmann Machines to reconstruct the probability distribution of Boson Sampling.

Implementing a neural network analysis in python IPM • 2022-2023

Implementing a neural network analysis using transformation coding in Python. The model was trained on the CIFAR-10 dataset to determine the detected image segment. The ultimate goal of the project was to define a rate for neural networks to show how much bias exists in the learning process and what part of the network is responsible for that.

Simulating Chaotic Pendulum University of Tehran • 2022 – 2023

By reviewing the chaotic behavior of a magnetic pendulum, I simulated it using Python, which enhanced my ability to implement different equations in a programming language.

Skills

- Proficient Python and C++ for implementing a variety of algorithms
- Using TensorFlow for implementing DL algorithms and partial familiarity with PyTorch
- Experience with Git for developing source codes collaboratively
- Experience with research methodologies and ability to find and read different resources for research
- Ability to work independently and as a part of a team
- Strong analytical and critical thinking skills
- Excellent written and verbal communication skills and strong presentation abilities
- Managed time effectively by prioritizing tasks and meeting deadlines consistently

Work Experience

- Teacher Assistant, Programming with Python Tehran, Iran • 2022 – 2023

Held classes to instruct supplementary materials and assisted the professor in grading exams and assignments.

- Collaborator in a DL project, Elites Co. Tehran, Iran • 2021 – 2022

Used Residual Neural Networks to train a model in order to detect UI elements existing in an image of a website.

- Laboratory technician, Safa San 'at Azerbaijan Co. Tabriz, Iran • 2019 – 2021

Calibration of equipment used in healthcare and food industry according to the standards issued by National Accreditation center of Iran

- **Editor-in-Chief of student scientific association's publication** Tehran, Iran • 2018 – 2019

Managed the contents of the publication and reviewed their scientific accuracy, and developed the success of the publication by cooperating with other faculties.

Hobbies

- I enjoy playing violin and tennis in my free time
- Volunteer activities at scientific associations
- Reading recent discoveries and breakthroughs both related and irrelated to my field of study
- Watching extra educational videos to strengthen my knowledge of my own field

References

- **Saleh Rahimi Keshari,** Department of Physics**,** Institute for Research in Fundamental Sciences, Former Assistant professor at University of Tehran

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- **Mohammad Khazaei**, Department of Physics, Assistant professor, University of Tehran

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