DANIAL EBRAT

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HIGHLIGHTS

- AI specialist with over 9 years of experience in 3 different companies with a successful history of participation and leadership in developing over 10 nationwide, large-scale software systems as an Artificial intelligence specialist, data scientist, and project manager, leading to multiple innovative patents.
- Passion for learning new technologies and facing new challenges, especially in interdisciplinary projects, leading to the collaboration and teamwork of diverse experts from different backgrounds.
- Proficient in Digital signal processing, Speech, Audio, and music signal processing.
- Proficient in coding, debugging, designing algorithms, and creating and deploying AI models in various interdisciplinary industrial projects with agile and scrum methodologies.
- Great attention to detail with organizational and interpersonal skills.
- Problem solver, analytical and critical thinker with excellent presentation skills.
- Ability to work independently, in a team, and lead projects under pressure to meet deadlines.

SKILLS

- **Programming language:** Python | SCALA | SQL
- **Libraries:** TensorFlow | Keras | PyTorch | NumPy | Pandas | Scikit-learn | PySpark | Matplotlib | RLLib | Ray
- **Databases and Big Data**: PostgreSQL | MongoDB | Apache Spark | Apache Sedona | MySQL | AWS S3
- **Cloud computing platforms**: Amazon Web Service (AWS) | Google Cloud Platform (GCP) | Azure ML | Snowflake
- **Development and Management**: PyCharm | IntelliJ | Jupyter | Colab | GitHub | Bitbucket | Jira | Power BI
- **Programming Paradigms and Concepts**: OOP | SOLID | Clean Code
- **AI**: ML/DL algorithms | Predictive and generative Models | Decision Analytics | Audio, speech and music signal processing | ML Pipelines | Large Language Models (LLM) | Prompt engineering

familiar with C#, C++, Java, and front-end technologies (HTML, CSS, Django, Flask, WordPress)

EXPERIENCE

Machine Learning Engineer | *Musora Media Inc., Canada*   **Aug 2023 - Present**
- Designed and implemented multiple fully automated hybrid recommender systems for online music education platforms, using cutting-edge approaches and cloud-based deployment.
- Created automated pipelines to annotate contents and transcriptions using LLMs APIs, whisper API, and prompt engineering to extract auto-generated Tags related to videos and audio contents.
- Created an AI-generated personalized messaging system to improve CTR engagement using LLMs, prompt engineering, and OpenAI API.

Artificial Intelligence Teacher | *Canada Super Spelling Bee, Canada*   **Feb 2023 – Sep 2023**
- Teaching Artificial Intelligence, Data Science, and machine learning using hands-on Python projects.

- Teaching programming and algorithms for coding contests such as the United States of America Computing Olympiad (USACO) and Canadian Computing Competition (CCC).

Research Assistant| *University of Windsor, Canada*   **Sep 2022 - Present**
- Conducted extensive research on applying multi-agent deep reinforcement learning in recommender systems, utilizing advanced technologies such as Ray, RLLib, and Google RecSim.
- Led a patent project involving the development of an Intelligent Framework for a Social Engineering Cyber Security Training program. This innovative AI-based system dynamically adjusted its behavior based on user responses, identifying vulnerable individuals and their weaknesses in relation to social engineering attacks.
- Research on the application of online interactive Deep reinforcement Learning, graph neural networks, and large language models for recommender systems, specifically in the music domain and education domain.

Artificial Intelligence Specialist | *ARAD Company, Iran*   **Jun 2021 – Aug 2022**
- Design and development of the back end of an analytics platform application that enables quick integration and fast analysis of vast amounts of complex data from the hybrid graphs and relational databases using SCALA, Apache Spark, MongoDB, Apache Livy, and Apache Sedona running on GPU clusters.
- Implementation and deployment of various deep learning and machine learning models for +5 projects related to the aerospace industries, such as anomaly detection, trajectory prediction, super-resolution radars, decision-making, and radar fusion which led to multiple innovative patents.
- Designing the conceptual architecture for a complex supply chain network associated with the Ministry of Agriculture and Livestock to automate the food industry of Iran.
- Research and development, data engineering, data collection and analysis, data mining, and data visualization resulted in +10 national and prospected projects worth millions of dollars.
- Provided mentorship to junior developers and interns by leading real-world projects and delivering instructional lectures. Developed curricula, created project plans, and guided to ensure the successful completion of projects.

Data Scientist| *Anahita Parvaz international tour and travel company, Iran*   **Jun 2018 – Jun 2021**
- Performing data mining and data analysis methods on customer information from different sources to achieve the best marketing plans.
- Optimization and decision-making using data science and data visualization for marketing purposes resulted in a 70% income increase.
- Performing time-series data mining and predictions for financial analytics to optimize the company's principal investments.
- Technology advisor and technology planning to improve marketing procedures for new customers and the satisfaction of reliable clients by automating processes.

IT Technician | *Anahita Parvaz international tour and travel company, Iran*   **Jun 2015 – Jun 2018**
- Webmaster, web manager, and SEO specialist
- Troubleshooting software, hardware, and network problems.
- Supply management for required software, hardware, and devices.

EDUCATION

Ph.D. of Computer Science   **Sep 2022 – Present**
University of Windsor, Ontario, Canada

M.Sc. in Computer Science   **Sep 2018 – Sep 2021**
Amirkabir University of Technology, Iran
Thesis Topic: *Iranian modal music detection using deep neural networks (Link: https://arxiv.org/abs/2203.15335)*

B.Sc. in Computer Science   **Sep 2013 – Sep 2018**
Amirkabir University of Technology, Iran