Ismail Gargouri

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EDUCATION

PhD Student in Computer Science   **Expected for Graduation: Aug. 2029**
University of North Dakota, Grand Forks, ND   *GPA: 4.0/4.0*

Bachelor of Science in Computer Science   **Jun. 2023**
University of Sfax, Sfax, TUNISIA   *GPA: 3.2/4.0*

SKILLS

Programming Languages: Python, SQL, Java, C, HTML, JavaScript, CSS, PHP
Machine Learning: Supervised/Unsupervised Learning, Classification, Clustering (K-Means), Anomaly Detection, Regression, Hyperparameter Tuning, Reinforcement Learning (Q-Learning)
Data Analysis: Data Cleaning, Feature Engineering, Statistical Analysis, Data Visualization
Databases: SQL (Oracle 21c), NoSQL (MongoDB)
Tools/Technologies: Pandas, NumPy, Matplotlib & Seaborn, Scikit-learn, TensorFlow, PyTorch, Power BI, Hadoop & Spark, ExpressJS, ReactJS, Microsoft Office Suite
Other: Deep Learning, Data Mining, Data Analytics, SCRUM, Cybersecurity (basic awareness), Adobe Creative Studio

RELEVANT PROJECTS

CSCI 543: Machine Learning   **Dec. 2024**
- Detected and classified fraudulent income tax records with 99% accuracy using a combination of K-Means clustering and Isolation Forest anomaly detection.
- Engineered and rigorously assessed three classification models: Selected Extra Trees as the optimal model based on its best Performance Score (Achieved 99% accuracy with a computing time of 1.09 seconds).

DATA 530: Artificial Intelligence   **Dec. 2024**
- Developed a Q-learning agent in Python to solve the CartPole-v1 environment, achieving an average reward of 195 during evaluation after 500 training episodes.
- Improved agent performance by approximately 200% over baseline through strategic hyperparameter tuning of learning rate, discount factor, and epsilon decay.

PROFESSIONAL EXPERIENCE

Graduate Research Assistant   **Sep. 2024 - Present**
University of North Dakota, College of Engineering and Mines - Grand Forks, ND
- Authored and edited 5+ sections of a scientific research paper, including Introduction, Literature Review, Methodology, Implementation, and Conclusion, contributing to publication-quality outputs.
- Designed and implemented a Markov Decision Process (MDP) model to simulate aircraft landing under control delay, achieving a landing success rate improvement of 30% compared to baseline models.
- Conducted 1000+ simulation episodes, optimizing control policies under delayed feedback conditions, leading to significant advancements in autonomous landing system performance.

LEADERSHIP EXPERIENCE & CERTIFICATIONS

- **Google Data Analytics |** Grand Forks, ND   **Apr. 2025**
- **Vice President Head of HR** | AIESEC in Sfax   **Feb. 2021 – Jan. 2022**
- **Graphic Designer** | AIESEC in Germany   **Oct. 2020 – Jan. 2021**
- **Customer Service Manager** | AIESEC in the United States   **Mar. 2020 – Aug. 2020**