MATTHEW SAAD

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EDUCATION

SUNY Brockport   Brockport, NY
B.S. Computer Science/Mathematics   *Aug 2020 – May 2024*
- Double Major with concentrations in Software Engineering and Statistics.
- Honors College; 3.89/4.0 GPA *Summa Cum Laude*.

EXPERIENCE

Excellus BCBS   Rochester, NY
Business Intelligence Administrator   *Jun 2024 - Present*
- Administered Databricks platform, ensuring secure access control and optimal workspace configurations.
- Engineered automated cluster management workflows, reducing resource overhead and ensuring security compliance.
- Built a PySpark Delta Live Table pipeline, integrating Databricks system tables and API data for real-time cost tracking.
- Optimized Databricks platform performance and security, ensuring high availability for analytics workloads.

Data Science Intern   *Jun 2022 - May 2024*
- Engineered a KNN and Random Forest-based recommendation engine to enhance member experience.
- Led the deployment of a REST API, achieving a 60% model efficiency gain through refactored code.
- Developed three RShiny applications to streamline model scoring and improve operational workflows.
- Designed two internal chatbots using generative AI tools, streamlining information dissemination.
- Explored the implementation of BERT and T5 models for telehealth call summarization.
- Effectively presented work to Excellus BCBS stakeholders, executives, and the broader company.

SUNY Brockport   Brockport, NY
Student Employee   *Aug 2022 - May 2024*
- Teaching assistant for CSC203: Object-Oriented Programming and CSC311: Computer Architecture (2 yrs.)
- Math tutor in the SUNY Brockport Academic Success Center (1 yr.)
- Grader for MTH201: Calculus I (0.5 yr.)

ActionLink   Henrietta, NY
Intel Representative   *Sep 2021 - Mar 2023*
- Improved customer engagement with Intel's initiatives, resulting in increased brand awareness and sales.
- Boosted BestBuy Henrietta employee participation in Intel's promotions and programs by 23%.

PUBLICATIONS

Closed Domain Question-Answering Techniques in an Institutional Chatbot | *ICECCME 2024*   Jan 2024 – Nov 2024
- M. Saad, Z. Qawaqneh. | IEEE, 2024. https://doi.org/10.1109/ICECCME62383.2024.10796881

PROJECTS

BrockportGPT | *Senior Honors Thesis* | https://github.com/msaad02/BrockportGPT   Apr 2023 – Jun 2024
- Designed and implemented an institutional chatbot using Retrieval-Augmented Generation (RAG).
- Built a 184M-parameter transformer model from scratch using PyTorch, fine-tuned for domain-specific QA.
- Presented research findings at SUNY Brockport Scholars Day, CCSCNE 2024, and SURC 2024.

Chess AI Bot | *AI/ML Final Project* | github.com/msaad02/final-project-ai-ml   May 2023
- Developed a deep learning-based chess AI using TensorFlow, applying minimax and alpha-beta pruning.
- Implemented a streaming dataset pipeline for large-scale training, optimizing memory and batch processing.

Car Price Prediction | *Data Science Final Project* | github.com/msaad02/final-project-data-sci   Dec 2021
- Studied the mathematical foundations of machine learning, including gradient descent and optimization.
- Performed data manipulation and modeling on a dataset of used cars to predict their price.

TECHNICAL SKILLS

Languages & Tools: Python, SQL, R, Java, C, Bash, Git, Docker
Big Data & Cloud: Databricks, Spark, PySpark, Azure, AWS
ML & Libraries: PyTorch, Hugging Face, pandas, NumPy, TensorFlow, Matplotlib, Tidyverse