# **Matthew Saad**

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#### **Overview**

Machine learning engineer with 3 years experience scaling Spark and ML pipelines on Azure Databricks. Published Gen-Al researcher with deep Python + cloud experience. I cut costs and turn messy data into production-grade models.

## **Skills**

Core Languages: Python, SQL, Terraform

Data & Infra Tooling: Apache Spark, Databricks, Azure, Data Lake, Power BI

ML & Gen-Al Tooling: PyTorch, HuggingFace, scikit-learn, TensorFlow, LLMs, PEFT MLOps & DevOps: Azure DevOps, CI/CD, Docker, Git, model deployment/monitoring

## **Experience**

## **BI Admin @ Excellus BCBS**

Jun 2024 - Present

- Primary Azure Databricks admin for 100+ engineers—owned infra, costs, optimization, and platform features.
- Engineered a Spark-parallel ingest of 4 TB from Oracle, reducing costs and runtime by 85%.
- Built Azure DevOps CI/CD (Databricks Asset Bundles + service connections) for simple, version-controlled releases.
- Surfaced Databricks spend by streaming billing logs to Power BI; flagged waste that cut monthly cloud costs 31%.
- Led Spark/compute tuning boot camp for 50 engineers; fixes cut costs 40% on production jobs.
- Published four internal Python libraries (ETL + governance) now used by 60+ pipelines.

#### Data Science Intern @ Excellus BCBS

Jun 2022 - May 2024

- Built two LLaMA-2 based RAG chatbots for querying HR & policy docs; presented to C-suite and secured buy-in.
- Developed a seq-to-seq transformer predicting ICD-10 codes from 80k+ records, improving diagnostic forecasting.
- Refactored and deployed model scoring API, improving efficiency by 60% and reducing compute time.
- Prototyped prior-authorization automation and telehealth call summarization with BERT and T5 models.

## Student Employee @ SUNY Brockport

Aug 2022 - May 2024

• Teaching assistant (Java OOP, MIPS), math tutor/grader.

## **Projects**

## BrockportGPT | Code: msaad02/brockport-gpt

Apr 2024

- Created an open-source chatbot for my undergraduate institution using RAG and LLM Finetuning.
- Built a 184M-parameter transformer model from scratch using PyTorch, fine-tuned for domain-specific QA.
- Published research in an IEEE conference paper as part of ICECCEME 2024 (paper/publication).

## Chess AI Bot | Code: msaad02/chess-ai

May 2023

- Trained a CNN model to predict board evaluation rating given by stockfish, using TensorFlow.
- Implemented a streaming dataset pipeline for large-scale training, optimizing memory and batch processing.

# **Education**

#### **Georgia Tech**

M.S. Computational Analytics

Starting Aug 2025

#### **SUNY Brockport**

**B.S. Computer Science & Mathematics** 

Aug 2020 - May 2024

- Double major with concentrations in Software Engineering and Statistics.
- Honors college; 3.9/4.0 GPA Summa Cum Laude.