# **Matthew Saad**

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#### **Overview**

Versatile engineer with deep experience across data infrastructure, ML systems, and platform operations. Built and optimized large-scale pipelines, authored production Python libraries, and deployed models for applied use cases in healthcare and research. Adept in Python, Terraform, and GPU-accelerated ML stacks.

### **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.
- Created ETL pipeline and reporting for Databricks billing, resulting in monthly cloud costs cut by 31%.
- Led Spark/compute tuning training 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 seg-to-seg 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

June 2025

- Trained MLP and CNN models for best move prediction based on open source LiChess game database.
- Engineered highly parallel ETL 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.