

SRIDHAR SAIRAM

sridhar.poguluru@gmail.com | linkedin.com/in/sridhar-sairam | github.com/srisais

EDUCATION

University of Toronto – St. George

Sep 2021 – Apr 2025

HBSc. in Computer Science and Mathematics

Toronto, Canada

- Relevant Courses: [Software Engineering](#), [Databases](#), [Data Visualization](#), [Data Structures & Algorithms](#), [Formal Software Design](#), [Software Tools and Systems Programming](#), [Problem Solving Seminar](#)

EXPERIENCE

Cloud Automation Engineer

May 2023 – Aug 2023

TD Bank

Toronto, Ontario

- Identified and **refactored 80% of the failing** (on-prem to cloud) **data migration pipeline** (daily) tests (via **ADF**, **Databricks**, **SSMS**) and rewrote test automations in **Java** that remedied the problematic race condition, caused due to a lack of test isolation (concurrent tests using the same filespace and overriding names)
- Developed internal data comparison tools for data migration file verification using **Python** in **Databricks** notebooks with **SQLite** that ensured the copied data (of various specific formats) was equivalent to the original data
- Sped up testing 2×** by generating dummy data (**CSV/XML**) files with **Python** for specific use-cases, allowing for faster debugging and standardizing test data generation, making debugging more deterministic

Teaching Assistantships (TA): [Lin Alg 1](#) (× 4), [Calc 1](#) (× 2) & Private Tutoring

Sep 2023 – Present

University of Toronto – St. George & Virtual

Toronto, Ontario

- Held: 2-4hrs of tutorials **weekly** (involving: lessons, quizzes, Q&A, discussions) (~**40 students/hour of tutorial**), 1-2hr lectures as required (~**150 students/lecture**), 6hrs of test review sessions (self-developed material, posted on [my website](#) (**300 unique visitors/month**) for accessibility) per term (course sizes: ~**1500 students**), exam rubric creation & marking
- Elevated uncertainty into mastery, ensuring deep understanding and genuine confidence in their skills, as reflected by **15-25% grade increases**, by uncovering subtle misunderstandings and **building understanding and confidence** through step-by-step patient, empathetic, logical (**emphasizing the "why"**) and detailed instruction (Students: Gr.5 - Yr. 2 Uni.)

PROJECTS

[Game Success Visual Data Analysis](#) | [HTML/CSS/JavaScript](#), [D3.js](#), [Bootstrap](#), [fullPage.js](#), [git](#)

April 2025

- Cleaned** and processed **dataset** from Steam (**100k entries**), to use in an **interactive bubble and frequency graphs**, encoding multi-dimensional data and using custom metrics, allowing for game retention/**loyalty analysis** over 12 genres
- Collaborated** in a 3-person team to deploy a **story-driven data-viz analysis** website to integrate 6 visualizations by coordinating data wrangling & UI across modules, allowing for **deductions** to be made about a **game's success**
- Synthesized findings into **actionable results** for a **successful game**, involving: multiplayer features, playing to game's genre, understanding sales & timings, and how community engagement can triumph over negative indicators

[High School Course Enrollment Predictor](#) | [Python](#), [matplotlib](#), [numpy](#), [ETX](#), [git](#)

Dec 2021

- Created a predictor that allows one to **graphically view** the past course enrollment of any Ontario (Canada) High School Courses and use **polynomial regression** to predict the enrollment for future years
- Created a **large-scale** object-oriented **heavily documented** Python program utilizing databases and various modules to track the course enrollment over many years, allowing for **data analysis** and further research
- Extracted, formatted, and **created clean data** from CSV files retrieved from the [Open Government Database](#)

Small Helper Scripts | [os](#), [eyed3](#), [shutil](#), [random](#), [vlc](#), [turtle](#), [math](#), [pygame](#)

2019 – 2025

- Hangman Solver/Agent: Using a **layered probabilistic network** with **doubly linked lists** implementing **DFS** and **pruning**
- MP3 File Organizer: An object-oriented Python program to organize MP3 files based on the title, artist, (**ID3 metadata**) etc. of the song, while playing the song for the user, allowing for quick manual sorting of file between multiple folders
- Photo Sorter: A Python script that allows a user to **quickly sort a large number** of photos into a destination folders
- Analog Clock Quizzer: An interactive quiz to help **children learn** to tell time on an analog clock
- Times Tables Quizzer: An **systematic interactive quiz** with **analytics recorded and presented** for user improvement

TECHNICAL SKILLS

Certifications : [Azure Fundamentals: AZ-900](#), Data Fundamentals: DP-900 (in-progress),

Languages : Python, HTML/CSS/JS, Java, SQL, C, C++, Bash, [ETX](#), R

Frameworks/Libraries : D3.js, Bootstrap, psycpg2, SQLite, matplotlib, numpy,

Tools : git, Azure (Databricks, Data Factory), Tableau