# **Liam Eggleston**

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Enthusiastic and driven high school student with a strong passion for data science, engineering, and mathematics. With my global mindset, I leverage my technological acumen to tackle critical societal issues, covering topics from cultural preservation to climate change.

Website: liameggleston.com

#### Education

St. Stephen's Episcopal School: Class of 2026

**GPA:** 3.9 unweighted

AP Courses Completed (Score): Calculus BC (5), Physics I (4), Computer Science A (5), Spanish

Language & Culture (5)

AP Courses in Progress: None

#### **Data Science Activities**

#### Founder and Writer | Climology (<u>liameggleston.com</u>) (August 2024 - Present)

- Authored and published articles on climate change and an action plan for the future
- Outlined technical projects with influence in the Open Compute Project

## **Neeley Data Analytics Academy | Texas Christian University** (August 2024)

- Established a solid foundation in data science, focusing on data scraping, data cleaning, and gleaning meaningful results from data
- Bridged my programming skills with my passion for environmentalism and my newfound data science resources to explore climate data and predict future trends

#### What is Data Science? | Coursera, IBM (June 2024)

- Identified the importance and applications of data science in today's data-driven world
- Explored the various paths that can lead to a career in data science
- Learned from advice given by seasoned data science professionals to beginner data scientists

# Introduction to Data Science Specialization | Coursera, IBM (July 2024)

- Explored the applications of data science to machine learning, its applications and use cases, and various types of tasks performed by data scientists
- Gained hands-on familiarity with common data science tools, including JupyterLab, R Studio,
  GitHub, and Watson Studio docs

- Developed the mindset to work like a data scientist and follow a methodology to tackle different types of data science problems
- Wrote SQL statements and queried Cloud databases using Python from Jupyter notebooks

#### Foundations of Data Science | Coursera, Google (June 2024)

- Investigated the impact data analysis can have on decision-making
- Explored preservation of data privacy and ethics

#### Data Science Math Skills | Coursera, Duke (July 2024)

- Strengthened foundational mathematical concepts essential for data science, including linear algebra, calculus, probability, and statistics
- Developed practical problem-solving skills through hands-on exercises and real-world applications of mathematical techniques
- Enhanced ability to manipulate data mathematically and interpret key results for data-driven decision-making

## Introduction to Statistics | Coursera, Stanford (June 2024)

- Built a strong foundation in statistical concepts, including probability, inference, regression, and hypothesis testing
- Developed skills to analyze and interpret data using statistical methods and real-world datasets
- Gained hands-on experience with statistical tools to make data-driven conclusions

## **Independent Academic Enrichment Experiences**

#### **UT Programming Program | iCode** (2022)

## Coding Apps with Java | ID Tech (July 2022)

Developed skills in Java

#### **Summer Academy for Robotics | University of Texas at Austin** (July 2024)

- Explored robotics with Arduino with experience in C++
- Leveraged calculus knowledge to create a PID controller
- Applied skills in collaborative group projects, enhancing practical understanding and teamwork

#### **Python Coding: Hand Motion Arcade Games | ID Tech** (July 2022)

 Developed computer vision skills using Python, specifically in interpreting hand motions for interactive applications

# **Web Design | Lavner | Washington University** (2022)

# **Independent Projects**

- Developed a grades calculator app and a paper-sparing printing app for students at my school
- Currently developing an Al-assisted live piano accompaniment program
- Conceived, researched, designed, and built various robotics and engineering projects, including: mechanical pen for teaching the blind to write, double inverted pendulum balance, PID-controlled line-following robot
- Developed a programming language with the performance of C++ but geared towards machine learning

# **Community Engagement Activities**

# President and Founder | Hack Club (August 2022 - Present)

- Led a school club dedicated to providing comprehensive education on good programming practices.
- Developed a curriculum and presented in-depth educational lessons to club members

## Website | Haiti Club (October 2023 - Present)

- Created and managed a website for my school's sister school in Haiti, St. Etienne
- Helped organize school-wide events to raise awareness and gain exposure
- Sold hand-made gifts to help fund St. Etienne

#### Medical Mission | Belize (March 2025)

- Assisted in oculoplastic reconstructive surgeries and ophthalmology clinic
- Conducted volunteer work in the Lion's Club of Belize City
- Volunteered Belize Counsel for the Visually Impaired, a nonprofit organization providing eyecare services

#### Medical Mission | Vietnam (March 2023)

- Screened over 200 patients in Hoi An Hospital in Vietnam
- Facilitated craniofacial and eyelid reconstructive surgery for children and adults
- Pre- and post-op care for adults and children undergoing craniofacial surgeries

#### Medical Mission | Cambodia (August 2019)

- Worked with Singaporean and Australian medical surgeons
- Organized medications in the pharmacy
- Visited homes of sick patients on islands off of Thailand, providing food and medicine alongside the International Medical Relief Foundation

#### **Refugee Tutoring | iAct** (August 2022 - Present)

Taught refugee children English reading and writing skills

#### **Volunteer Service | Ronald McDonald House and Mobile Loaves & Fishes (2022 - Present)**

- Volunteered through several organizations benefiting those suffering from poverty
- Made and served food and provided resources to the homeless and the poor with children receiving medical care

#### Founder | Ultimate Frisbee Club (October 2025 - Present)

- Responded to an interest in the sport at my school by collaborating with faculty to create a program for students
- Contributed to the sport's being registered as an official sport elective

# **Recognition/Awards**

#### Top 30 USA Climbing Competitor in the US

Competed and ranked nationally for the speed discipline of the Youth Series

#### **Presidential Service Award | Bronze, 2025**

Distinction for 100+ hours of volunteer work

# Crohn's and Colitis Foundation | Honored Hero

#1 fundraiser in the greater Austin area and keynote speaker at an awareness event

#### TXML | Second Place, 2024

Brought my school to second place in the state for the TeXas Math League

#### **National Merit Scholar Semifinalist**

Achieved a high score on the PSAT and qualified as a NMS semifinalist. Awaiting finalist application results.

# Micro-Grant Recipient, 2025

Funding for timing service research under Stephen Wolfram contributing to the Open Compute Project

#### St. Stephen's Concerto Competition Winner, 2025

Won a solo with my school's orchestra playing Rachmaninoff's Piano Concerto No. 2

#### Math | Honorable Mention, 2024

Awarded to the four strongest math students at my school

#### AMC 8 | Second Place, 2022

Second place in a nationwide math competition

#### Honor Roll, 2022-2026

Maintained Honor Roll throughout all four years of high school

#### Featured in the Media

#### Crohns and Colitis Foundation - Austin's "Honored Hero"

(https://takesteps.crohnscolitisfoundation.org/index.cfm?fuseaction=donate.participant&participantl D=35762)

#### **Publications**

## Can You Hear Naples? Building and Benchmarking a Neapolitan Speech Corpus

- Built and benchmarked a speech corpus for Neapolitan, a richly historic but under-resourced Romance dialect
- Accepted to COLM, LowResNLP, published to arXiv

# Bridging the Gap: Leveraging Cherokee to Improve Language Identification for Endangered Iroquoian Languages

- Trained and benchmarked a model to show that traditional, money-motivated companies fail basic language tasks for endangered Native languages like Cherokee
- Published to arXiv

#### **Work Experience**

#### CTO | TrueAuto

- Designed a website and framework by which the company operates
- Created a service through which people can buy and sell cars without facing unfair dealership markups

# Clinical and First Surgical Assist | Eyelid & Facial Plastic Surgery Associates

- Aided in volunteer surgery abroad
- Helped patients during consultations

#### **Extracurriculars**

#### **USA Climbing National Competitor** (October 2022 - Present)

- Ranked top 30 in the United States
- Progressed to regional or national level in all three disciplines

## **Concert Pianist** (2012 - Present)

- Concerto competition winner
- Currently playing Rachmaninoff's Second Piano Concerto (Third Movement)
- Have played since I was four years old

## Programmer (August 2020 - Present)

- Began as a commissioned game developer
- USACO competitor
- Developed my own programming language for machine learning
- Own a programming YouTube channel with millions of views

## Languages

English: First language

**Spanish:** Fluent in reading, writing, and speaking; spoken at home

Mandarin: Conversational in speaking

Computer: Proficient in C++, Python, JavaScript, Nim, Rust, R, SQL, and Obsidian (a programming

language I developed for machine learning)