Theodore Ehrenborg theodore.ehrenborg@gmail.com https://ehrenborg.dev/

Work Experience

Jan 2024 – Senior Machine Learning Engineer, Myrtle.ai, Cambridge, UK

For our CAIMAN-ASR product, I

- stay current with recent advances in the literature
- run experiments to reduce word error rate
- debug hardware problems in our on-premise GPU servers
- test code and make public releases
- interview applicants and interact with potential customers

Sept 2022 – Dec 2023 Junior Machine Learning Engineer, Myrtle.ai

Summer 2022 Machine Learning Intern, Myrtle.ai

Designed speech detection system, created dataset, and trained LSTM RNNs.

Personal GitHub https://github.com/TheodoreEhrenborg

Author of https://sae.ehrenborg.dev/

Trains a sparse autoencoder on a 33 million parameter language model (LM)

Author of https://rl.ehrenborg.dev/

Uses reinforcement learning to make a LM generate stories with alliteration

Work GitHub https://github.com/TheoEhrenborg

Contributor to https://github.com/MyrtleSoftware/caiman-asr

Author of 412 of the 926 merged pull requests, which include:

- A major refactor of this 14000-line-of-code repository
- Random State Passing, which decreased long-audio word-error-rate by ~40% relative

Reviewed 382 of the other 514 merged pull requests

Released v1.9.0, v1.10.1, and v1.11.0

Education

2019 – 2022 University of Cambridge, Cambridge, England

BA Mathematics, Clare College.

Year 1: Not classed due to pandemic. Year 2: Class I. Year 3: Class II.i.

I was awarded a Cambridge Trust Scholarship, 10000 GBP per year for 4 years.

2015 – 2019 Henry Clay High School, Lexington, KY, USA

SAT score: 1600 out of 1600. ACT score: 36 out of 36. 13 AP courses: all scores 5 out of 5.

Computer Experience

Fluent in: Python, PyTorch, Docker, Git, Linux, WordPress, & LaTeX.

Have used: Lean 4, Rust, Julia, Nix, Elm, Keras, SageMath, Octave, Compute Engine, AWS, & Java.

Languages

English: Native speaker

French: Completed 5 years of instruction including AP French

Extracurriculars

Winter 2019 – Spring 2020 Imperial College Mathematics Competition (a national UK contest)

I qualified for the second (and final) round and tied for 43rd place.

May 2018 Intel International Science and Engineering Fair (ISEF)

Intel ISEF is the largest international high school science fair in the world. I won a 3rd award ($1000) in mathematics for my project, "Pythagorean Quintuples and Quaternions".